

Issue Date: December 28, 1999

DLA-FERROCHROMIUM-003

SOLICITATION OF OFFERS FOR FERROCHROMIUM



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SCHEDULE

SECTION A - SOLICITATION

A.1 Introduction (NOV 98)

a. The Defense Logistics Agency (DLA), Defense National Stockpile Center (DNSC), is soliciting offers for the sale of approximately **116,387** short tons of ferrochromium, consisting of approximately **70,079** short tons of high carbon ferrochromium, approximately **5,128** short tons of low carbon ferrochromium, and approximately **41,180** short tons of ferrochromium silicon. **The initial opening will be held on January 28, 2000, at 2:00 p.m., local time, Ft. Belvoir, VA.** If all material is not sold, subsequent offerings will be held on the fourth Friday of each month at 2:00 p.m., local time, Ft. Belvoir, VA, beginning February 25, 2000, until all material is sold. Offers must be received at the address in Section **B.2.a.** by 2:00 p.m., local time, Ft. Belvoir, VA. In the event a day scheduled for receipt of offers is a holiday or DNSC is otherwise closed at the time set, offers for that day will be received at 2:00 p.m., local time, Ft. Belvoir, VA, on the next DNSC business day.

b. Offerors are advised to telephone the Directorate of Stockpile Contracts at (703) 767-6500 to ascertain the availability of material.

c. Handling and outloading will be performed by and at the expense of the Contractor for the high carbon ferrochromium, low carbon ferrochromium, and for the ferrochromium silicon stored in bulk piles. For the ferrochromium silicon stored in drums, delivery is F.O.B. carrier's conveyance. The Government will assist with outloading of the drummed material. (See **F.1.d** and **F.1.e.**)

d. This Solicitation supersedes Solicitation of Offers for Ferrochromium, DLA-FERROCHROMIUM-002, which is hereby canceled.

A.2 Description (JAN 95)

a. The high carbon ferrochromium is stored in bulk piles at Charleston, SC. The low carbon ferrochromium is stored in bulk piles at Sharonville, OH. Item Nos. 120 and 121 of ferrochromium silicon are stored in bulk piles at Warren, OH. The remaining items of ferrochromium silicon are stored in steel drums and are on wooden pallets at Curtis Bay, MD; Binghamton, NY; and Pt. Pleasant, WV Depots and on dunnage at the Warren, OH and New Haven, IN Depots. See Sections **I.2** and **J.1** for further description of the offered material.

b. Government analyses indicate that the material conforms to the data listed in Paragraph A.2.a, Section I.2, and Section J.1; however, no warranty or guarantee is made that the material so conforms or that it will be suitable for any particular purpose.

SECTION B - PREPARATION AND SUBMISSION OF OFFERS**B.1 Submittals (NOV 99)**

Offerors shall submit **all** of the following documents along with the offer unless otherwise noted:

a. Section I.1 Sale of Government Property Negotiated Sales Contract (JUL 97) with the section entitled "Execution by Contractor" completed.

b. Section I.2 Item Offer Page - DLA-FERROCHROMIUM-003 (JAN 00) with (1) unit price column; (2) total offered price column; (3) company name; (4) name and title; (5) signature and (6) date blocks completed.

c. Section I.3 Certificate of Independent Price Determination (JUL 97).

d. Section I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, Environmental Compliance and Other Responsibility Matters (JUL 97).

e. Representations, Certifications and Identifications at Section I.5 through I.10. Offerors please note: If Annual Representations, Certifications, and Identifications have previously been submitted they need not be resubmitted.

f. Any other terms the Offeror wishes to negotiate. (See Section B.9.b.)

B.2 General Information (JUL 97)

a. Facsimile offers and modifications will be accepted in accordance with Section **B.8**. Offers may also be submitted by mail or hand delivered enclosed in a sealed envelope and addressed to:

ATTN: DNSC-L (Bid Custodian)
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand Delivered)
Fort Belvoir, Virginia 22060-6223
Facsimile No. (703) 767-5541

Place the name and address of the Offeror in the upper left corner and the following information in the lower left corner on the face of the envelope:

SOLICITATION OF OFFERS
DLA-FERROCHROMIUM-003

b. The Offeror agrees, if its offer is accepted by the Government within **twenty (20)** working days from the date specified in the Solicitation for receipt of offers, to purchase any or all material on which offers are made at the price offered and to take delivery of the material within the time specified in the executed **Section I.1 Sale of Government Property Negotiated Sales Contract (JUL 97).**

c. Unless a designation of agent is on file at DNSC, an Offeror submitting an offer as agent for another party shall submit written proof, either prior to or with the offer, that it is authorized to act as agent and shall tender the offer in the name of the principal.

B.3 Minimum Quantity (JAN 95)

The **minimum** offer quantity shall be a complete line item. An offer for less than a complete line item may render the offeror ineligible for award.

B.4 Pricing for Ferrochromium (DEC 99)

- a.** Prices for high and low carbon ferrochromium shall be expressed on the basis of chromium content. Prices for ferrochromium silicon shall be expressed on a bulk weight basis.
- b.** Offers for high and low carbon ferrochromium and ferrochromium silicon may be expressed on a fixed price basis only if the requested contract period does not exceed 90 calendar days.
- c.** Formula prices are acceptable for any length contract period.

B.5 Pricing for High and Low Carbon Ferrochromium (Formula Price Basis) (DEC 99)

- a.** Offers for high and low carbon ferrochromium where the contract period exceeds 90 calendar days shall be expressed as a percentage plus a premium (>100%) or minus a deviation (<100%) to the reference price. The premium or deviation may be expressed as a percentage (e.g., 110%) or as dollars per short ton of chromium.
- b.** The reference prices for high and low carbon ferrochromium shall be the monthly average prices from the chosen index publication. Examples of acceptable indices include Platt's Metals Week and Ryan's Notes Ferrous and Nonferrous News and Prices. The average of the low and high prices identified in the index publication shall be used, as follows: (1) for high carbon ferrochromium, the prices for 60-65% chromium content material; and (2) for low carbon ferrochromium, the prices for 0.1% carbon content material.
- c.** The actual price for high and low carbon ferrochromium will be determined on the date the Contractor's shipping instructions for a quantity of material are received by the Government. Shipping instructions must contain all of the information specified in Section **F.1.b.** or they will not be accepted by the Government or used for pricing the material. The actual price will be based on the average reference price for the previous calendar month and will be computed in dollars per short ton contained chromium as follows: (1) The monthly average of the reference price will be multiplied by the contract percentage plus or minus the premium or deviation, for the item requested for release; and (2) the computed dollar per pound unit price shall be expressed to four decimal places and then multiplied by 2,000 to convert to dollars per short ton.

B.6 Pricing for Ferrochromium Silicon (Formula Price Basis) (DEC 99)

- a.** Offers for ferrochromium silicon where the contract period exceeds 90 calendar days shall be expressed as a percentage plus a premium (>100%) or minus a deviation (<100%) to the reference price. The premium or deviation may be expressed as a percentage (e.g., 110%) or as dollars per pound of ferrochromium silicon (bulk weight).
- b.** The reference price for ferrochromium silicon shall be the monthly average prices from the chosen index publication. Examples of acceptable indices include Platt's Metals Week and Ryan's Notes Ferrous and Nonferrous News and Prices. The average of the low and high prices identified in the index publication may be used. The reference price will be based on the assumption that the material contains 40% chromium (Cr) and 40% silicon (Si). The value of the chromium and silicon units will be indicated by the published prices for ferrochromium (60-65% Cr content) and ferrosilicon (75% Si content). For example, if a publication reports a 75% Si ferrosilicon average price of 40 cents per pound Si and a 60-65% Cr high carbon ferrochromium average price of 45 cents per pound Cr, the per pound ferrochromium silicon price

(bulk weight) will be calculated as follows: $\{(0.40 \times 40 \text{ cents per pound}) + (0.40 \times 45 \text{ cents per pound})\} = 16 \text{ cents per pound} + 18 \text{ cents per pound} = 34 \text{ cents per pound ferrochromium silicon}$. Alternatively, the monthly average prices for ferrochromium silicon published in Ryan's Notes Ferrous and Nonferrous News and Prices may be used as the reference price.

c. The actual price for ferrochromium silicon will be determined on the date the Contractor's shipping instructions for a quantity of material are received by the Government. Shipping instructions must contain all of the information specified in Section **F.1.b.** or they will not be accepted by the Government or used for pricing the material. The actual price will be based on the average reference price for the previous calendar month and will be computed in dollars per pound bulk weight of ferrochromium silicon as follows: (1) The monthly average of the reference price will be multiplied by the contract percentage plus or minus the premium or deviation, for the item requested for release; and (2) the computed dollar per pound unit price shall be expressed to four decimal places.

B.7 Late Submissions, Modifications, and Withdrawals of Offers (MAR 98)

a. Any offer received at the office designated in the solicitation after the exact time specified for receipt of offers will not be considered unless it is received before award is made and-

(1) It was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);

(2) It was sent by mail (or telegram or facsimile, if authorized) or hand-carried (including delivery by a commercial carrier) if it is determined by the Government that the late receipt was due primarily to Government mishandling after receipt at the Government installation;

(3) It was sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of offers. The term "working days" excludes weekends and U.S. Federal holidays;

(4) It was transmitted through an electronic commerce method authorized by the solicitation and was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or

(5) There is acceptable evidence to establish that it was received at the activity designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers, and the Contracting Officer determines that accepting the late offer would not unduly delay the sale; or

(6) It is the only offer received.

b. Notwithstanding paragraph a. of this provision the only acceptable evidence to establish the time of receipt of a facsimile offer transmitted to a number other than that listed in **Section B.8** is the time/date stamp manually recorded by Government personnel, other documentary evidence maintained by the installation, or oral testimony or statements of Government personnel. In no event will the time/date annotated by a facsimile machine located at a number other than that listed in **Section B.8** be acceptable evidence to establish the timeliness of an offer.

c. Any modification of an offer, including a modification resulting from the Contracting Officer's request for "best and final" offer, is subject to the same conditions as in subparagraphs **a.(1)** through **a.(5)** of this provision.

d. The only acceptable evidence to establish the date of mailing of a late offer or modification sent either by U.S. Postal Service registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the offer or modification shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

e. Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

f. The only acceptable evidence to establish the date of mailing of a late offer, modification, or withdrawal sent by Express Mail Next Day Service - Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph d. of this provision, excluding postmarks of the Canadian Postal Service. Therefore, offerors should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and the envelope or wrapper.

g. Notwithstanding paragraph **a.** of this provision, a late modification of an otherwise successful offer that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

h. Offers may be withdrawn by written notice or telegram (including mailgram) received at any time before award. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provisions entitled "Facsimile Submissions." Offers may be withdrawn in person by an offeror or an authorized representative, if the representative's identity is made known and the representative signs a receipt for the offer before award.

i. If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office.

B.8 Facsimile Submissions (JUL 97)

Facsimile offers and modifications will be accepted any time prior to the exact time set for receipt of offers. Facsimile withdrawals will be accepted any time before award. **Offerors must use the facsimile number: (703) 767-5541.**

a. Definition: "Facsimile submission," as used in this Solicitation, means an offer, modification of an offer, or withdrawal of an offer that is transmitted to and received by the Government via electronic equipment that communicates and reproduces both printed and handwritten material.

b. Offerors may submit facsimile submissions as responses to this Solicitation. These responses must arrive at the place, and by the time, specified in the Solicitation.

c. Facsimile submissions that fail to furnish required representations or information, that reject any of the terms, conditions, and provisions of the Solicitation, that contain garbled information, or are otherwise incomplete, may be excluded from consideration.

d. Facsimile submissions must contain the required signatures.

e. If the Offeror chooses to transmit a facsimile submission, the Government will not be responsible for any failure attributable to the transmission or receipt of the facsimile submission including, but not limited to, the following:

- (1) Receipt of garbled or incomplete transmission.
- (2) Availability or condition of the receiving facsimile equipment.
- (3) Incompatibility between the sending and receiving equipment.
- (4) Delay in transmission or receipt of transmission.
- (5) Failure of the Offeror to properly identify the submission.
- (6) Illegibility of submission.
- (7) Security of submission data.

B.9 Consideration of Offers (FEB 98)

a. The Government reserves the right to --

- (1) Reject any or all offers;
- (2) Waive any informalities and minor irregularities in an offer; and
- (3) Accept any one item or group of items in an offer, as may be in the best interest of the Government.

b. The Government may request specific documentation to support the offer submitted. Failure to provide the documentation, if requested, may result in the Offeror being ineligible for award. Pricing data will be treated as proprietary and will not be released by the Government.

c. "All or none" offers will not be considered.

B.10 Evaluation of Offers (MAR 98)

a. **General** - The evaluation factors are listed below in descending order of importance:

- (1) Unit Price.
- (2) Payment Terms.
- (3) Removal schedule.

All evaluation factors other than unit price, when combined, are significantly less important than unit price.

b. To be considered, offers must meet the following minimum requirements:

- (1) Submission of the information requested in Section **B.1**;
- (2) Submission of pricing which complies with the provisions of Sections **B.4**, **B.5**, and/or **B.6**;
- (3) Compliance with Section **B.9.c**; and
- (4) Submission of a removal period schedule which meets or exceeds the provisions of Section **E.1**.

c. Requests for payment terms will be considered only from offerors with a satisfactory performance and payment record with DNSC and a satisfactory current Dun & Bradstreet Report. The maximum acceptable payment term is Net 30 days.

B.11 Negotiation Procedures (JUL 97)

The Government intends to evaluate offers and award a contract after conducting discussions with all offerors whose offers have been determined to be within the competitive range. However, the Government reserves the right to award without discussions. Accordingly, offerors are advised to include their best possible terms in their initial offer.

If the Government determines that holding discussions is in its best interest, the following procedure will be utilized:

a. **Competitive Range** - The competitive range shall be determined on the basis of price and other factors that are stated in the solicitation and will include all offers which comply with Section **B.10.b**. that have a reasonable chance of being selected for award. Offers not included in the competitive range will not be given further consideration.

b. **Negotiations/Discussions** - Only offerors within the competitive range will be contacted to schedule the day and time for discussions to be conducted. Negotiations will be conducted only with the company official signing **Section I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)** or a specifically authorized individual identified in **Section I.8 Authorized Negotiators (JUN 95)**. The content and extent of the discussions is a matter of the Contracting Officer's judgment, based on the particular facts of the sale and each offeror's initial offer.

c. **Discussion Session** - Only one discussion session per offeror is intended. In order to facilitate meaningful discussions, offerors should:

(1) Be prepared to discuss:

- (A) Only those prices and terms included in the initial offer;
- (B) Supporting documentation and justification for the derivation of prices offered;
- (C) Payment terms;
- (D) Removal schedules; and

(2) Arrange to have appropriate support personnel present during discussions, i.e., Purchasing, Marketing, etc.

d. **Best and Final Offer Requests** - At the conclusion of discussions, all offerors with which discussions were conducted will be requested to submit a best and final offer (BAFO). Oral requests for best and final offers will be confirmed in writing. Each individual BAFO request will include the following:

- (1) Notice that discussions are concluded;
- (2) Time and date by which BAFOs must be submitted;
- (3) Notice that BAFOs are subject to Section **B.7 Late Submissions, Modifications, and Withdrawals of Offers (MAR 98)**;
- (4) A record of negotiated issues and understandings between the Government and the offeror (as applicable);
- (5) A list of remaining questions/deficiencies (if any);
- (6) A caution to offerors to provide supporting documentation for any changes to their prior offers as revised during discussions; and
- (7) Notice that the Government intends to evaluate best and final offers and award a contract without further discussions.

e. **Best and Final Offer Responses** - BAFOs should strictly conform to the best and final offer request. If no response is received to the BAFO request, the initial offer will be considered as the best and final offer. Changes which are not fully supported by documentation may not be evaluated or considered.

f. **Subsequent Discussions/BAFO Requests** - Generally, only one best and final offer will be requested. After receipt of best and final offers, discussions will not be reopened unless the Government determines it is in its best interest to do so. If discussions are reopened, an additional request for best and final offers will be issued to all offerors still within the competitive range.

B.12 Disclosure of Information (DEC 97)

Proprietary or confidential information disclosed in offers/discussions/BAFOs will not be disclosed to the public or used by the Government except for evaluation purposes.

B.13 Responsibility Determination (JUN 95)

No award shall be made unless the Contracting Officer makes an affirmative determination of responsibility. To be determined responsible, an Offeror shall, at a minimum, have adequate financial resources, a satisfactory performance record, and a satisfactory record of integrity and ethics. For example, an Offeror may be determined to be non-responsible and therefore ineligible for award if there is a record of poor payment (e.g., checks returned for insufficient funds) or poor performance (e.g., failure to pay for or remove material on time).

B.14 Contract Award (JUL 97)

A written award or acceptance of an offer signed by the Contracting Officer and furnished to a successful Offeror within the time specified for acceptance shall result in a binding contract incorporating all the terms and conditions of this Solicitation unless otherwise stated in the executed Section **I.1, Sale of Government Property Negotiated Sales Contract (JUL 97)**.

B.15 Unsuccessful Offerors (FEB 98)

The Contracting Officer will notify unsuccessful offeror(s) at the earliest practicable time of the basis for non-award.

SECTION C - INSPECTION (JUN 98)

- a. For the ferrochromium silicon, one drum from four (4) lots at each location will be available for inspection and sampling. Offerors or their designees may at their expense, inspect the drums and take a grab sample, not exceed two (2) pounds from each drum. The sample will be provided in the presence of and under the direction of a DNSC representative.
- b. For the high and low carbon ferrochromium and the ferrochromium silicon stored in piles, offerors or their designees, at their expense, are encouraged to inspect pile material and take a grab sample, not to exceed 50 pounds per pile.
- c. The Government does not warrant any grab samples to be representative of the lots or piles sampled.
- d. Requests for an appointment to visually inspect and/or to take samples of the material must be made in writing or by facsimile submission on company letterhead to the point of contact identified in Section **J.2 Storage Locations (JAN 00)**, at least ten (10) working days prior to the date of the requested inspection and/or sampling. Requests shall include the name and title of each individual wishing to visually inspect the material and/or to take samples. Offerors will be notified by telephone of the date the material will be available for inspection and/or sampling. The Government reserves the right to limit the number of individuals granted access to the depot.
- e. Offerors, their agents and representatives shall comply at all times with the rules of the storage location.
- f. The Offerors shall provide the Government with any analyses derived from the grab sample(s).

SECTION D - PAYMENT

D.1 Payment (FEB 98)

a. Payment shall be made in U.S. dollars.

b. Payment shall be made by wire transfer, U.S. Postal Service money order, or company or bank check.

(1) Wire transfer payment shall be made in accordance with instructions in Section **J.5**. Fees for wire transfers are the responsibility of the Contractor. If payment is by wire transfer and the wrong account number is used, shipment of material may be delayed by up to one week or the wire transfer may be returned to the sender.

(2) All checks must be drawn on a U.S. domestic bank or on the United States branch of an acceptable foreign bank and must be payable in United States currency. **A service charge of \$100.00 will be applied to all returned checks.**

c. Payment shall be made to the **Defense Finance and Accounting Service - Columbus (DFAS-Columbus)**. If a check is not made payable to DFAS-Columbus, the check may be returned and the \$100.00 fee stated in **D.1.b** charged. Payment shall be accompanied by **identifying information including the contract number, invoice number, and a description of the material purchased**. Payments without the required identification may be returned. Payments shall be sent to:

ATTN: DNSC-DF, Accounts Receivable
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand Delivered)
Fort Belvoir, VA 22060-6223

d. Invoices issued for adjustment for variations in quantity or weight, storage charges, or interest shall be paid promptly.

e. If payment is not made in full within 30 calendar days of issuance of an invoice, the Government will issue a "demand" letter, demanding payment of the outstanding amount. If all moneys due are not paid within 30 calendar days after the date of the Government's demand letter, the Contractor will be considered delinquent and any outstanding charges will be reduced by any subsequent payments. No material will be shipped until all delinquent charges are paid. (See Sections **F.1.a.** and **G.10.**)

D.2 Payment Due Date (JUL 97)

a. Unless otherwise specified in the contract, payment shall be made before shipment of material and before the time specified in the executed Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**. If payment is not received by 11:00 a.m., local time, on the payment due date, payment will not be credited until the next Government business day. Interest and storage charges will accrue accordingly.

b. In the event the payment due date falls on a Saturday, Sunday, or Federal holiday, then the payment due date will be extended to the next Government business day.

D.3 Interest (JUL 97)

a. All amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 611, which is applicable to the period in which the amount becomes due, as provided in paragraph **b.**, below.

b. Amounts shall be due at the earliest of the following dates:

(1) The final day of the contract period specified in Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**; or

(2) The date of the first written demand for payment under the contract.

SECTION E - REMOVAL**E.1 Removal of Material (FEB 98)**

a. The contract period is based on the quantity of material awarded and begins on the date of contract award. The contract periods are as follows:

(1) High and Low Carbon Ferrochromium

<u>Quantity Awarded</u>	<u>Contract Period</u>
Up to 1,500 STCr	30 Calendar Days
1,501 - 3,000 STCr	60 Calendar Days
3,001 STCr to 5,000 STCr	90 Calendar Days
5,001 STCr and above	360 Calendar Days

(2) Ferrochromium Silicon

<u>Quantity Awarded</u>	<u>Contract Period</u>
Up to 500,000 Lbs	30 Calendar Days
500,001 to 1,000,000 Lbs	60 Calendar Days
1,000,001 to 1,500,000 Lbs	90 Calendar Days
1,500,001 Lbs and above	360 Calendar Days

b. For an award with a contract period of 360 calendar days, the Contractor shall pay for and remove a minimum of twenty-five percent (25%) of the total contract award quantity within each of the first three 90-calendar day periods, and the balance within the remainder of the 360 calendar day contract period specified above.

c. If the Contractor fails to pay for and remove the material in accordance with the schedule specified in the contract, the Contractor will be considered delinquent and no material will be shipped until payment has been made.

d. The contract period includes Saturdays, Sundays, and holidays. If the last day of the contract period is a Saturday, Sunday, or holiday, or the storage location is otherwise closed that day, the period of contract performance will be extended to the next Government workday.

E.2 Storage Charges (JUL 97)

a. Storage charges shall be assessed on all material remaining after the last day of the contract period. The Government reserves the right to remove any remaining material to a commercial storage facility and be reimbursed by the Contractor for any expenses incurred. Storage charges continue to accrue until all the material has been removed or the contract is terminated for default, in which case the Contractor will be liable for damages, as set forth in Section **G.7 Default** of the Solicitation.

b. The storage charge for all material is the greater of the following: (1) **\$0.005 per pound bulk weight** (if a fraction of a pound remains, the charge will be for a full pound) per 30 day period regardless of whether the material remains in storage a period of 30 days or less than 30 days; or (2) commercial storage charges, if applicable.

c. Storage charges will be invoiced upon shipment. Payment shall be made promptly.

d. Payment of storage charges shall not relieve the Contractor of its obligation to remove the material in a timely manner. Acceptance of storage payments by the Government is not a waiver of the Government's right to default the Contractor for failure to remove the material (See Section **G.7 Default**).

SECTION F - SHIPPING

F.1 Request for Shipment (JUN 97)

a. For low and high carbon ferrochromium and for the ferrochromium silicon stored in piles, handling and outloading will be by and at the expense of the Contractor. For the ferrochromium silicon stored in drums, delivery is F.O.B. carrier's conveyance. At least **fifteen (15)** working days prior to the date shipment is required to commence the Contractor shall furnish to the designated depot commercial bills of lading. Simultaneously the Contractor shall complete and fax the form in Section **J.3 Shipping Instructions (JAN 95)** to the Contracting Officer. The Government will only accept shipping instructions from those individuals designated in Section **I.9** as being authorized to request shipment of material on behalf of the Contractor. **No material will be released until all outstanding delinquent charges and payments have been satisfied.**

b. "Shipping Instructions" shall include the following:

- (1) Quantity of material to be released.
- (2) Designation of type and kind of conveyance.
- (3) Name of the carrier (please include a telephone number where this contact can be reached).
- (4) "Ship to" location.
- (5) Minimum load per conveyance (optional)
- (6) Desired shipping schedule.
- (7) Name and telephone number of an agent who can furnish additional shipping information if needed.
- (8) Any additional pertinent information.

c. The shipping schedule shall allow sufficient time for the Government to reasonably meet such schedule prior to the last day of the contract removal period commensurate with existing loading facilities and other commitments at the Government's storage locations. Information regarding Government commitments may be obtained from the address specified in Section **J.2**.

d. If outloading for drum material is to be accomplished by truck, the Government will provide lumber and nails from available stock if requested by the Contractor's designee/driver. The Contractor's designee shall perform any necessary procedure(s) to ensure the cargo is safely secured prior to leaving the depot. The Government will not block, chock, brace, lash, band, or in any manner secure the cargo on the Contractor's conveyance(s). The Contractor's designee shall witness the loading. Any expenses over and above those normally incurred by the Government to meet the public carrier's requirements for loading like materials will be at the expense of the Contractor.

e. If outloading of drum material is to be accomplished by rail, the Government will provide materials and will block, chock, brace, and/or band as necessary to secure the cargo. The Government will not be responsible for demurrage charges.

f. Contractor will be responsible for demurrage charges, damage to rail tracks and switches, or any costs associated with derailment.

g. The Contractor, its agent and employees shall comply with all applicable rules at the storage depot; Federal, state and local load limitations; and all safety, health, and environmental requirements.

h. Requests for shipment shall be for a minimum of **300 ST for material stored in piles, or the remaining balance at a location if less than 300 ST remain; or for an entire item for material stored in drums**. Shipping instructions and information requested in paragraph **b.**, above, are to be furnished to the following address:

Defense National Stockpile Center
ATTN: DNSC-P4/Ferrochromium Contracting Officer
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivered)
Ft. Belvoir, VA 22060-6223
Facsimile Number: (703) 767-5484

i. The Government shall determine the order in which the material is scheduled, coordinated, and outloaded.

j. The Contractor shall pay \$100 per day if the Contractor's conveyance fails to report to an unstaffed storage location as scheduled. See Section **J.2** for identification of unstaffed locations.

F.2 Insurance Requirements (APR 95)

The Contractor shall procure and maintain, and require any subcontractor to procure and maintain, during the entire period of performance under this contract, such insurance as stipulated herein.

a. Workers' compensation and employer's liability. The Contractor is required to comply with applicable Federal and State workers' compensation and occupational disease statutes. Employer's liability coverage of at least \$100,000 is required, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

b. General liability. Bodily injury liability insurance coverage written on the comprehensive form of policy of at least \$500,000 per occurrence.

c. Automobile liability insurance written on the comprehensive form of policy is required. The policy shall provide for bodily injury and property damage liability covering the operation of all automobiles used in connection with performing the contract. Policies covering automobiles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

F.3 Weighing of Low and High Carbon Ferrochromium and Ferrochromium Silicon Stored in Piles (JAN 95)

a. Conveyance (truck, van, or railroad cars as applicable by location) shall be light (tare) and heavy weighed (gross), with the tare weight of the conveyance deducted to arrive at the net weight of the material. The stenciled tare weight of a railroad car and the actual tare weight of trucks or vans shall be used. Weighing shall be done by and at the expense of the contractor. All weighing shall be witnessed by a Government representative, with the exception of weighing on railroad scales which will be witnessed by the railroad. Weighing shall be done on the nearest railroad scale or nearest public truck scale.

b. A Government representative shall certify the correctness of the weighing method used and that the truck scales have been inspected and certified. The contractor will provide certified scale tickets within ten working days after the entire requested release quantity has been shipped, or at the end of each week's shipment, whichever is sooner.

c. Weight certificates shall be provided at the expense of the Government. Scale tickets shall be provided by the contractor to the Government representative on site. Outbound Storage Reports will be issued by the Government and will be final for payment.

F.4 Outloading/Weighing of Ferrochromium Silicon in Drums (JAN 95)

a. The ferrochromium silicon drums are stored on pallets at the following locations: Baltimore, MD; Binghamton, NY; and Point Pleasant, WV. The drums stored at New Haven, IN and Warren, OH are **not** on pallets.

b. No weighing of material will be performed by the Government. The Government weights of record shall govern. The Contractor may elect to have a representative present to witness the outloading.

c. Weight certificates shall be provided at the expense of the Government. Outbound Storage Reports will be issued by the Government and will be final for payment purposes.

d. In the event that any broken containers are detected at time of shipment, these will be overpackaged by the Government at the Government's expense prior to outloading. If no loss is discernible, the weight of record with the Government shall govern for that item and shall be final for payment.

F.5 Weight Discrepancy (JAN 95) (Applies only to Ferrochromium Silicon Stored in Drums)

a. If the Contractor's weights for the material delivered vary from the Government's certified weights by more than one-half of one percent, the Contractor may give notice of such difference to the Contracting Officer within two working days (exclusive of Saturdays, Sundays, and Government holidays) after receipt of the material at destination, requesting that the material be reweighed. In that case, the Contractor shall segregate the shipment in question and hold it intact pending reweighing. The entire shipment shall be reweighed by the Contractor at its expense, in the presence of and in the manner approved by a Government representative, using scales approved by the Government representative. If the weight varies from the Government's certified weight by greater than one-fourth of one percent, plus or minus, that weight shall govern for payment purposes. If the weight determined by reweighing does not vary from the Government's certified weight by greater than one-fourth of one percent, plus or minus, the Government's certified weight shall be final for payment purposes.

b. No adjustment shall be considered or made in accordance with the above paragraph unless notice is given by the Contractor to the Contracting Officer within the time specified above and all other requirements of the paragraph are complied with.

F.6 Assumption of Risk and Disclaimer of Liability (JUL 97)

The Contractor, its assigns or agents, assumes full responsibility for all injury or damage to persons or property occasioned by or occurring in connection with or incident to any use or possession of this material. The Government assumes no liability for any damages to the property of the Contractor or any other person or property, or for any personal injury, illness, disability or death to the Contractor, Contractor's employees or any other person subject to Contractor's control, or for any other consequential damages arising from or incident to the purchase, use, loading, processing, disposition, or any subsequent operation performed upon, exposure to or contact with any component, part, constituent or ingredient of this item, material or substance.

F.7 Adjustment for Variation in Quantity or Weight (JAN 95)

The Government reserves the right to vary the quantity or weight delivered by 10% for bulk material and 2% for drummed material from the quantity or weight listed in the Solicitation and the Contractor agrees to accept delivery of any quantity or weight within these limits. The contract price will be adjusted upward or downward in accordance with the unit price and on the basis of the quantity or weight actually delivered.

F.8 Environmental Protection (JUN 95)**a. Transportation Requirements**

(1) The transportation of hazardous material is governed by Department of Transportation (DOT) Hazardous Materials Regulations (Title 49 Code of Federal Regulations, Parts 170-189). If the material being transported is covered by DOT Regulations, the Contractor or its agent is responsible for certifying to DOT that hazardous materials are properly classified, described, packaged, marked, and labeled and are in a condition safe to transport based on the Contractor's or its agent's own examination of the material. (See especially 49 CFR 173.7(a)(1).)

(2) The Government reserves the right to conduct reasonable inspection of the Contractor's or its agent's transportation conveyances or other equipment utilized to effect removal of the material purchased under this Solicitation. Inspection may occur prior to, during, or subsequent to removal of the material from Government storage locations. The Contractor or its agent shall provide Government representatives with access and any reasonable assistance required to conduct this inspection.

b. Material Safety Data Sheets

(1) Offerors are warned that unprotected exposure to hazardous substances, hazardous materials and hazardous chemicals may significantly increase the risk of health problems. The Contractor shall comply with all applicable Occupational Safety and Health Administration (OSHA) and any other Federal, state or local laws, codes, ordinances, and regulations (including obtaining any required licenses or permits) governing exposure to, and storage, handling, transportation, and disposition of, this material.

(2) Material Safety Data Sheets as required by OSHA Hazard Communication Standard - 29 CFR 1910.1200 are incorporated herein. (See Section **J.4**) This data provides specific toxicity and health related data for the protection of human health and the environment. Offerors should review this information carefully. It is the responsibility of the Contractor to further communicate this information to the distributor, manufacturer, user and/or transporter of this material as may be required by Federal regulations.

(3) Offerors shall also refer to 29 CFR 1910 Occupational Safety and Health Standards, specifically sections 1910.1000 through 1050. These occupational standards set standards for permissible exposures, methods of compliance, personal protective equipment, and other measures that must be taken

when working with, or in proximity to, hazardous materials, chemicals and substances in the United States and its territories and possessions.

c. Use and Disposition

(1) The Contractor certifies that it shall use and ultimately dispose of any hazardous material purchased under this Solicitation in accordance with all applicable Federal, state, local and international laws and regulations and in a manner safe for the public and the environment.

(2) The material offered under this Solicitation is not, in its present form, subject to EPA Hazardous Waste Regulations (40 CFR Part 260, et seq.) issued under the Resource Conservation and Recovery Act. However, it is possible that use of this material will lead to the creation of a hazardous waste. 40 CFR Part 260, et seq., details the responsibilities of generators, transporters, treaters, storers, and disposers of hazardous waste. Failure to comply with these regulations can lead to civil and criminal penalties.

(3) The wood pallets or materials used to package the commodity sold under this Solicitation may have been treated with a wood preservative to protect it from insect attack and decay. These preservatives penetrate and remain in the wood for a long time and may pose certain hazards if precautions are not taken during the handling, use, and disposal of these treated wood products. Treated wood products should not be burned in open fires. Contractors are encouraged to seek advice on proper disposal from the local environmental protection agency.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 Amendments and Modifications (JAN 95)

- a. Changes in terms and conditions of this Solicitation shall be accomplished by written amendment only.
- b. Changes in terms and conditions of any resulting contract shall be accomplished only by written modification signed by the Contracting Officer.

G.2 Title (JAN 98)

Title to the material shall pass to the Contractor upon execution of the contract; however, removal is subject to the remaining terms and conditions of the solicitation and any resulting contract.

G.3 Risk of Loss (JAN 98)

- a. Prior to the date specified for removal, the Government shall be responsible only for the exercise of reasonable care for the protection of the material.
- b. After the date specified for removal, or any extension approved in writing by the Contracting Officer, all risk of loss, damage, or destruction from any cause whatsoever, shall be borne by the Contractor.

G.4 Limitation on Government's Liability (JAN 95)

- a. Except as provided in paragraph b. in any case where liability of the Government to the Contractor has been established, the measure of the government's liability shall not exceed refund of whatever portion of the purchase price the Contractor has paid.
- b. Where specifically authorized in writing by the Contracting Officer, the Contractor may recover reasonable costs of packing, loading, and transportation incurred in connection with return of material to the Government.

G.5 Agency Protests (SEP 99)

- a. Companies protesting this sale may file a protest 1) with the contracting officer, 2) with the General Accounting Office, or 3) pursuant to Executive Order No. 12979, with the **Agency** for a decision **by the Director, Directorate of Stockpile Contracts**. Protests filed with the **agency** should clearly state that they are an "Agency Level Protest under Executive Order No. 12979." (**Note: DLA procedures for Agency Level Protests filed under Executive Order No. 12979** allow for a higher level decision on the initial protest than would occur with a protest to the contracting officer. **This process is not an appellate review of a contracting officer's decision on a protest previously filed with the contracting officer**). Absent a clear indication of the intent to file an agency level protest, protests will be presumed to be protests to the contracting officer

PROCEDURES FOR FILING PROTESTS

b. Protests Before Award

Protests before award may be filed not later than 10 calendar days after the basis of protest is known or should have been known, whichever is earlier. Protests may be filed directly with DNSC only or with the General Accounting Office (GAO).

c. Protests After Award

Protests after award shall be filed not later than 10 calendar days after the basis of protest is known or should have been known, whichever is earlier, with the exception of protests challenging a sale conducted on the basis of competitive proposals under which a debriefing is requested and, when requested, is required. In such cases, the initial protest shall not be filed before the debriefing date offered to the protester, but shall be filed not later than 10 calendar days after the date on which the debriefing is held and the basis of protest is known or should have been known, whichever is earlier. Protests must be in writing and may be filed directly with the Contracting Officer, with the DNSC or with the GAO.

d. Service of Protest

1. Protests shall be served on the Contracting Officer by obtaining written and dated acknowledgment of receipt from:

Attn: DNSC-P, Ferrochromium Contracting Officer
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivered)
Ft. Belvoir, VA 22060-6223

2. Protest shall be served on the DNSC for a decision at a level above the Contracting Officer by obtaining written and dated acknowledgment of receipt from:

Attn: DNSC-P, Director, Directorate of Stockpile Contracts
Defense National Stockpile Center
8725 John J. Kingman Road
Suite 4616 (Mail) or Suite 4528 (Hand delivered)
Ft. Belvoir, VA 22060-6223

e. Receipt of Protest

A copy of the protest shall be received in the office designated above within one day of filing a protest with the GAO at the following address:

General Counsel
Attn: Procurement Law Control Group
U.S. General Accounting Office
441 G Street, NW
Washington, DC 20548

G.6 Disputes (JAN 95)

a. This contract is subject to the Contract Disputes Act of 1978 (41 U.S.C. 601-613) (the Act).

b. Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

c. "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by subparagraph **d.(2)** below. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this paragraph, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

d. (1) A claim by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be by written decision of the Contracting Officer.

(2) For Contractor claims exceeding \$100,000, the Contractor shall submit with the claim a certification that-

(i) The claim is made in good faith;

(ii) Supporting data are accurate and complete to the best of the Contractor's knowledge and belief; and

(iii) The amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable.

(3) (i) If the Contractor is an individual, the certification shall be executed by that individual.

(ii) If the Contractor is not an individual, the certification shall be executed by -

(A) A senior company official in charge at the Contractor's plant or location involved; or

(B) An officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.

e. For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

f. The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

g. At the time a claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative means of dispute resolution. When using alternative dispute resolution procedures, any claim, regardless of amount,

shall be accompanied by the certificate described in paragraph **d(2)** of this clause, and executed in accordance with paragraph **d(3)** of this clause.

h. The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (properly certified if required), or (2) the date payment otherwise would be due, if that date is later, until the date of payment. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

i. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

G.7 Default (JUL 97)

a. (1) The Government may, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to -

(i) Make payment and remove the material within the time specified in this contract or any extension;

(ii) Remove the material within the time specified in this contract irrespective of whether or not payment has been made;

(iii) Make progress, so as to endanger performance of this contract; or

(iv) Perform any of the other provisions of this contract.

(2) The Government's right to terminate this contract under (1)(i) through (1)(iv) above, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure. If at any time prior to the expiration of this contract, the Contractor makes it clear either by words, actions or circumstances, that the Contractor is unwilling or unable to perform under this contract, the Government shall not be required to furnish the Contractor notice specifying a failure under this contract, prior to exercising its right to terminate this contract for default and seek damages.

(3) Upon the Contractor's failure to cure such default within that period (or such further period as the Contracting Officer may allow), the Contractor shall lose all right, title and interest which it might otherwise have acquired in and to the material as to which a default has occurred.

b. If the Government terminates the contract, the Contractor shall be held liable for damages as described below. However, in no event will damages exceed the original contract price.

c. If the Government terminates the contract for default, it may subsequently resell the material for the Contractor's account, under the terms and in the manner the Contracting Officer considers appropriate, and assess the Contractor the difference between the contract price and the price obtained on resale. In no event will the Contractor be refunded any money if the Government obtains a greater price on resale, nor will an accounting of money be made until resale is complete. In the event that the Government does not succeed in reselling the material within 12 months, the Contractor may be held liable for the full contract price for the quantity of material on which the default has occurred. In order to calculate the Government's damages on contracts where the contract price is determined on a formula-price basis, the Government will establish the contract price for the quantity of material on which the default has occurred as follows: Using the pricing

mechanism set forth in Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**, The Government will set the price as though the material had been priced on the last day of the contract removal period or the date of the termination notice, whichever is earlier.

d. The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

G.8 Termination for Convenience of the Government (DEC 97)

a. The Contracting Officer, by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If the contract is terminated, the Government shall only be liable for actual costs incurred by the Contractor before the effective date of termination.

b. If a bona fide requirement for the material develops or exists prior to removal of the material from Government control, the Government may withdraw that material from the sale. In the event of a withdrawal under this condition, the Government shall be liable only for the refund of the contract price of the withdrawn material or such portion of the contract price as it may have received plus simple interest at the rate established by the Secretary of the Treasury.

G.9 Excusable Delays (MAY 95)

a. In the event either party should be prevented from performing under this contract by reason of any unforeseeable cause beyond its control and without its fault or negligence, including, but not restricted to, acts of God or of the public enemy, sovereign acts of the United States, acts of a foreign Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unusually severe weather, performance under the contract shall be suspended in whole or in part until such cause ceases to exist and thereafter the time for fulfillment of the contract shall be extended by the length of time during which the cause prevented performance under the contract.

b. This section shall also apply to an excusable delay condition that prevents delivery at a consignee's plant if -

(1) the delay meets the criteria in paragraph **a.** above; and

(2) the identity of the consignee is known to the Government prior to commencement of the excusable delay condition.

c. The Contractor shall notify the Contracting Officer, in writing, of the nature and extent of the excusable delay condition promptly after the commencement thereof, but in any event prior to outloading of the material from the storage location from which it is to be shipped. The Contractor shall notify the Contracting Officer, in writing, within ten (10) calendar days when the excusable delay condition ceases to exist.

G.10 Setoff of Funds (JUL 98)

The Contractor agrees that the Government may use all or a portion of any monies received by the Government to satisfy, in whole or in part, any debt (e.g., delinquent payments, interest or storage charges), arising out of this or any other transaction.

G.11 Indemnification Agreement (JUN 96)

The Contractor shall save and hold harmless and indemnify the Government against any and all liabilities, claims, and costs of whatsoever kind and nature for injury to or death of any person or persons and for loss or damage to any property (Government or otherwise) occurring in connection with or in anyway incident to or arising out of the occupancy, use, service, operations, or performance of work in connection with the contract. Whether due to negligence or not of the Contractor, the Contractor agrees to defend any and all claims or suits against the United States, whether well founded or not, in any way whatsoever alleged to have arisen from or been connected with performance of this contract and to reimburse the United States for any legal expenses (including salaries of attorneys) incurred by the United States in defending such suits.

G.12 Covenant Against Contingent Fees (JAN 95)

a. The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to add to the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

b. "Bona fide agency," as used in this paragraph, means an established commercial or selling agency, maintained by a Contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

c. "Bona fide employee," as used in this paragraph, means a person, employed by a Contractor and subject to the Contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

d. "Contingent fee," as used in this paragraph, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

e. "Improper influence," as used in this paragraph, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

SECTION H - DEFINITIONS (JUN 95)

As used throughout this Solicitation, the following terms shall have the meaning set forth below:

- a.** The term "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings.
- b.** The term "small business concern" for the purpose of this Solicitation, is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is offering on Government contracts, and qualified as a small business under the criteria and size standards in 13 CFR Part 121.
- c.** The terms "Offeror", "Purchaser", or "Contractor" may be used interchangeably.

SECTION I - SUBMITTALS

COMPLETE AND RETURN THE FOLLOWING WITH YOUR OFFER:

- I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**
- I.2 Item Offer Page - DLA-FERROCHROMIUM-003 (JAN 00)**
- I.3 Certificate of Independent Price Determination (JUL 97))**
- I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, Environmental Compliance, and Other Responsibility Matters (JUL 97)**
- I.5 Type of Business Organization (APR 96)**
- I.6 Small Business Concern Certification (JAN 95)**
- I.7 Clean Air and Water Certification (JUN 95)**
- I.8 Authorized Negotiators (JUN 95)**
- I.9 Persons Authorized to Request Shipment of Material (FEB 98)**
- I.10 Offeror's Billing Address (JUL 96)**

I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)

SALE OF GOVERNMENT PROPERTY NEGOTIATED SALES CONTRACT		CONTRACT NUMBER SP0833-00-S		PAGE 1 OF	
<p>This contract is entered into by and between the United States of America, hereinafter called the "Government," represented by the Contracting Officer executing this contract and the Contractor below identified. The Government agrees to sell and the Contractor agrees to buy the material described below in accordance with the terms and conditions of DLA-FERROCHROMIUM-003. In the event of a conflict between the terms of the Solicitation and the Negotiated Sales Contract, the terms of the Negotiated Sales Contract shall govern</p>					
<i>ITEM</i>	<i>PROPERTY DESCRIPTION AND LOCATION</i>	<i>QUANTITY (No. of Unit(s))</i>	<i>UNIT</i>	<i>UNIT PRICE</i>	<i>AMOUNT</i>
CONTRACT PERIOD EXPIRES ON:					
EXECUTION BY CONTRACTOR			EXECUTION BY GOVERNMENT		
DATE (Day, Month, Year) NAME OF CONTRACTOR ADDRESS (Street, City, State & Zip Code) (Type or Print) <div style="margin-top: 20px;"> Telephone No: _____ Facsimile No: _____ </div>			UNITED STATES OF AMERICA BY: _____ NAME AND TITLE OF CONTRACTING OFFICER <div style="margin-top: 20px;"> _____ Contracting Officer <u>DNOSC-P4</u> <div style="text-align: right;">(Agency)</div> </div>		DATE:
SIGNATURE AND TITLE OF PERSON AUTHORIZED TO SIGN THIS CONTRACT (Type or print name and title under signature)					

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Weight LBCr	Quantity Offered LBS	Unit Price	Total Offered Price
001	Curtis Bay, MD	0057-82-003	666	677,425.00	266,702.22	677,425.00		
002	Curtis Bay MD	0057-82-004	430	449,985.00	183,233.89	449,985.00		
003	Curtis Bay MD	0057-82-005	431	454,155.00	184,477.76	454,155.00		
004	Curtis Bay MD	0057-82-006	434	452,815.00	181,397.69	452,815.00		
005	Curtis Bay MD	0197444-006	662	675,515.00	267,368.84	675,515.00		
006	Curtis Bay MD	0197444-007	839	846,030.00	346,449.29	846,030.00		
007	Curtis Bay MD	0197563-008	439	449,915.00	179,471.09	449,915.00		
008	Curtis Bay MD	0197444-008	650	675,190.00	271,291.34	675,190.00		
009	Curtis Bay MD	0197563-009	439	449,180.00	178,638.89	449,180.00		
010	Curtis Bay MD	0197444-009	554	562,430.00	224,859.51	562,430.00		
011	Curtis Bay MD	0197563-010	440	451,065.00	179,163.02	451,065.00		
012	Curtis Bay MD	0197444-010	557	562,495.00	229,047.96	562,495.00		
013	Curtis Bay MD	0197563-011	445	451,280.00	178,842.26	451,280.00		
014	Curtis Bay MD	0197444-011	671	674,010.00	272,771.85	674,010.00		
015	Curtis Bay MD	0197563-012	785	897,765.00	356,592.26	897,765.00		
016	Curtis Bay MD	0197563-013	769	899,030.00	362,398.99	899,030.00		
017	Curtis Bay MD	0197563-014	789	901,710.00	361,225.03	901,710.00		
018	Curtis Bay MD	0197563-015	783	900,785.00	364,457.61	900,785.00		
019	Curtis Bay MD	0197431-026	560	563,995.00	229,151.17	563,995.00		
020	Curtis Bay MD	0197431-027	579	562,135.00	220,637.99	562,135.00		
021	Curtis Bay MD	0197431-028	804	787,305.00	320,984.25	787,305.00		
022	Curtis Bay MD	0197431-029	687	673,205.00	271,638.22	673,205.00		
023	Curtis Bay MD	057-272-030	640	661,411.00	262,117.18	661,411.00		
024	Curtis Bay MD	0197431-030	672	675,340.00	272,162.02	675,340.00		
Depot Sub-total:				15,354,171				

Company Name: _____ Name and Title: _____

Signature: _____ Date: _____

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Weight LBCr	Quantity Offered LBS	Unit Price	Total Offered Price
025	Curtis Bay MD	0197431-031	444	451,050.00	181,773.15	451,050.00		
026	Curtis Bay MD	057-272-031	560	595,565.00	243,586.09	595,565.00		
027	Curtis Bay MD	057-272-032	480	505,129.00	197,909.54	505,129.00		
028	Curtis Bay MD	0197431-032	515	562,885.00	230,501.41	562,885.00		
029	Curtis Bay MD	197431-033	502	563,015.00	226,219.43	563,015.00		
030	Curtis Bay MD	057-272-033	560	579,247.00	235,348.06	579,247.00		
031	Curtis Bay MD	0197431-034	400	451,155.00	181,815.47	451,155.00		
032	Curtis Bay MD	057-272-034	560	602,468.00	242,011.40	602,468.00		
033	Curtis Bay MD	0197431-035	454	509,950.00	199,441.45	509,950.00		
034	Curtis Bay MD	057-272-035	560	608,164.00	243,630.50	608,164.00		
035	Curtis Bay MD	057-272-036	463	480,136.00	194,983.23	480,136.00		
036	Curtis Bay MD	0197431-036	438	503,020.00	198,441.39	503,020.00		
037	Curtis Bay MD	0197431-037	388	449,320.00	175,684.12	449,320.00		
038	Curtis Bay MD	057-272-037	432	453,478.00	184,293.46	453,478.00		
039	Curtis Bay MD	0057-80-04A	215	225,795.00	88,489.06	225,795.00		
Depot Total:				22,894,548				
040	Binghamton, NY	0197431-017	663	674,075.00	267,135.92	674,075.00		
041	Binghamton, NY	0197431-018	331	337,260.00	133,757.32	337,260.00		
042	Binghamton, NY	0197431-019	327	336,830.00	132,980.48	336,830.00		
043	Binghamton, NY	0197431-020	671	675,520.00	268,924.51	675,520.00		
044	Binghamton, NY	0197431-021	676	674,325.00	266,628.11	674,325.00		
045	Binghamton, NY	0197431-022	664	675,865.00	271,562.56	675,865.00		
046	Binghamton, NY	0197431-023	676	676,725.00	264,261.11	676,725.00		
047	Binghamton, NY	0197431-024	671	673,805.00	274,238.64	673,805.00		
048	Binghamton, NY	0197431-025	667	675,280.00	274,298.74	675,280.00		
Depot Total:				5,399,685				

Company Name: _____ Name and Title: _____

Signature: _____ Date: _____

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Weight LBCr	Quantity Offered LBS	Unit Price	Total Offered Price
049	New Haven, IN	K-1000	601	560,970.00	216,478.32	560,970.00		
050	New Haven, IN	C-3000	580	561,620.00	223,917.89	561,620.00		
051	New Haven, IN	K-1001	593	548,945.00	266,905.45	548,945.00		
052	New Haven, IN	C-3001	561	561,680.00	223,043.13	561,680.00		
053	New Haven, IN	C-3002	555	561,336.00	223,411.73	561,336.00		
054	New Haven, IN	K-1002	800	715,270.00	287,109.38	715,270.00		
055	New Haven, IN	C-3003	554	561,605.00	225,821.37	561,605.00		
056	New Haven, IN	K-1003	720	669,771.00	267,037.70	669,771.00		
057	New Haven, IN	K-1004	680	610,864.00	241,718.88	610,864.00		
058	New Haven, IN	K-2006	477	435,740.00	171,376.54	435,740.00		
059	New Haven, IN	K-2007	511	463,890.00	185,834.33	463,890.00		
060	New Haven, IN	K-2008	610	566,850.00	227,193.48	566,850.00		
061	New Haven, IN	K-2009	838	784,855.00	312,607.75	784,855.00		
062	New Haven, IN	K-2010	585	540,715.00	214,393.50	540,715.00		
063	New Haven, IN	K-2011	592	560,235.00	221,124.75	560,235.00		
064	New Haven, IN	K-2012	589	558,522.00	225,363.63	558,522.00		
065	New Haven, IN	K-2013	600	567,414.00	226,738.63	567,414.00		
066	New Haven, IN	K-2014	600	547,012.00	217,874.88	547,012.00		
067	New Haven, IN	K-2015	608	546,335.00	219,025.70	546,335.00		
068	New Haven, IN	K-2016	608	544,020.00	217,825.61	544,020.00		
069	New Haven, IN	K-2017	640	551,665.00	219,397.17	551,665.00		
070	New Haven, IN	0057-80-301	352	422,400.00	172,043.52	422,400.00		
071	New Haven, IN	0057-80-302	363	435,600.00	176,505.12	435,600.00		
072	New Haven, IN	0057-80-303	347	416,400.00	166,393.44	416,400.00		
073	New Haven, IN	0057-80-304	358	429,600.00	173,644.32	429,600.00		
Depot Sub-total:				13,723,314				

Company Name: _____ Name and Title: _____

Signature: _____ Date: _____

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Weight LBCr	Quantity Offered LBS	Unit Price	Total Offered Price
074	New Haven, IN	0057-80-305	344	412,800.00	165,780.48	412,800.00		
075	New Haven, IN	0057-80-306	341	409,200.00	165,766.92	409,200.00		
076	New Haven, IN	0057-80-311	348	417,600.00	168,084.00	417,600.00		
077	New Haven, IN	0057-80-312	348	417,600.00	167,916.96	417,600.00		
078	New Haven, IN	0057-80-313	357	428,400.00	171,274.32	428,400.00		
079	New Haven, IN	0057-80-314	353	423,600.00	166,728.96	423,600.00		
080	New Haven, IN	0057-80-315	346	415,200.00	168,488.16	415,200.00		
081	New Haven, IN	0057-80-316	341	409,200.00	165,316.80	409,200.00		
082	New Haven, IN	0057-80-317	351	421,200.00	166,921.56	421,200.00		
083	New Haven, IN	0057-80-318	356	427,200.00	169,854.72	427,200.00		
Depot Total:				17,905,314				
084	Pt. Pleasant, WV	0197563-016	396	450,155.00	176,775.87	450,155.00		
085	Pt. Pleasant, WV	0197563-017	585	658,540.00	261,835.50	658,540.00		
086	Pt. Pleasant, WV	0197563-018	592	658,770.00	265,352.56	658,770.00		
Depot Total:				1,767,465				
087	Warren, OH	C-3004	434	451,145.00	180,548.23	451,145.00		
088	Warren, OH	C-3005	448	449,435.00	179,054.90	449,435.00		
089	Warren, OH	K-1005	640	649,834.00	262,273.00	649,834.00		
090	Warren, OH	C-3006	444	449,735.00	177,690.30	449,735.00		
091	Warren, OH	K-1006	562	563,939.00	225,688.39	563,939.00		
092	Warren, OH	C-3007	440	449,950.00	180,339.96	449,950.00		
093	Warren, OH	K-1007	504	525,083.00	211,030.86	525,083.00		
094	Warren, OH	K-1008	489	494,414.00	199,199.40	494,414.00		
Depot Sub-total:				4,033,535				

Company Name: _____ Name and Title: _____

Signature: _____ Date: _____

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Weight LBCr	Quantity Offered LBS	Unit Price	Total Offered Price
095	Warren, OH	C-1013A	497	561,595.00	225,143.44	561,595.00		
096	Warren, OH	C-1014A	504	561,565.00	224,176.75	561,565.00		
097	Warren, OH	C-1015A	508	561,430.00	226,537.01	561,430.00		
098	Warren, OH	C-1016A	188	210,560.00	85,508.42	210,560.00		
099	Warren, OH	K-2018	560	484,265.00	194,868.24	484,265.00		
100	Warren, OH	K-2019	640	560,215.00	221,116.86	560,215.00		
101	Warren, OH	K-2020	800	705,505.00	285,941.18	705,505.00		
102	Warren, OH	K-2021	640	578,615.00	231,330.28	578,615.00		
103	Warren, OH	K-2022	640	571,715.00	232,859.52	571,715.00		
104	Warren, OH	K-2023	560	499,705.00	203,030.14	499,705.00		
105	Warren, OH	K-2024	640	553,885.00	220,944.73	553,885.00		
106	Warren, OH	K-2025	640	563,930.00	224,387.75	563,930.00		
107	Warren, OH	K-2026	640	582,930.00	231,947.85	582,930.00		
108	Warren, OH	K-2027	640	563,905.00	223,249.99	563,905.00		
109	Warren, OH	K-2028	640	585,676.00	233,918.99	585,676.00		
110	Warren, OH	K-2029	640	583,615.00	234,321.42	583,615.00		
111	Warren, OH	K-2046	560	582,292.00	234,780.13	582,292.00		
112	Warren, OH	K-2047	640	669,105.00	271,522.81	669,105.00		
113	Warren, OH	K-2048	480	506,346.00	206,032.19	506,346.00		
114	Warren, OH	K-2049	560	597,246.00	241,586.01	597,246.00		
115	Warren, OH	K-2050	560	575,275.00	232,698.74	575,275.00		
116	Warren, OH	K-2051	320	335,784.00	135,824.63	335,784.00		
117	Warren, OH	K-2052	526	549,652.00	221,399.83	549,652.00		
118	Warren, OH	0057-80-319	352	422,400.00	165,960.96	422,400.00		
119	Warren, OH	0057-80-320	351	421,200.00	165,405.24	421,200.00		
Depot Total:				17,421,946				

Company Name: _____ Name and Title: _____

Signature: _____ Date: _____

A. FERROCHROMIUM SILICON

Item No.	Location	Pile No.	Quantity ST	Quantity STCr	Weight LBS	Quantity Offered LBS	Unit Price	Total Offered Price
120	Warren Depot Warren, OH	003A	3,066	1,228	6,132,030	6,132,030		
121	Warren Depot Warren, OH	003B	5,419	2,166	10,838,315	10,838,315		
Depot Total:			8,485	3,394	16,970,345			

Company Name: _____

Name and Title: _____

Signature: _____

Date: _____

B. LOW CARBON FERROCHROMIUM

Item No.	Location	Pile No.	Quantity ST	Quantity STCr	Quantity Offered STCr	Unit Price	Total Offered Price
122	Sharonville Depot Sharonville, OH	2	1,214	811	811		
123	Sharonville Depot Sharonville, OH	5	1,621	1,115	1,115		
124	Sharonville Depot Sharonville, OH	6	2,293	1,532	1,532		
Depot Total:			5,128	3,458			

Company Name: _____

Name and Title: _____

Signature _____

Date: _____

C. HIGH CARBON FERROCHROMIUM

Item No.	Location	Pile No.	Quantity ST	Quantity STCr	Quantity Offered STCr	Unit Price	Total Offered Price
143	Charleston Depot Charleston, SC	FC4	50,828	34,944	34,944		
145	Charleston Depot Charleston, SC	FC2	19,251	12,640	12,640		
Depot Total:			70,079	47,584			

Company Name:

Name and Title:

Signature:

Date:

I.3 Certificate of Independent Price Determination (JUL 97)**a.** The offeror certifies that:

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

b. Each signature on the offer is considered to be a certification by the signatory that the signatory:

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or offer, and that the signatory has not participated and will not participate in any action contrary to subparagraphs **a.(1)** through **a.(3)** above; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs **a.(1)** through **a.(3)**, above

_____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or offer, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision **b.(2)(i)** above have not participated, and will not participate, in any action contrary to subparagraphs **a.(1)** through **a.(3)** above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs **a.(1)** through **a.(3)** above.

c. If the offeror deletes or modifies subparagraph **a.(2)** above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

I.4 Certification Regarding Debarment, Suspension, Proposed Debarment, Environmental Compliance and Other Responsibility Matters (JUL 97)**a.** (1) The Offeror certifies, to the best of its knowledge and belief, that -

(i) The Offeror and/or any of its Principals -

(A) Are (____) are not (____) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have (____) have not (____), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission

of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

(C) Are (____) are not (____) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision **a.(1)(i)(B)** of this provision.

(D) Are ____ are not ____ presently indicted for or otherwise criminally or civilly charged by a Federal, state or local entity with violation of any environmental laws;

(E) Have ____ have not ____ within the three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for violation of a Federal, state or local environmental statute or regulation.

(ii) The Offeror has (____) has not (____), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

(3) If the Offeror answers affirmatively to anything in **a.(1)**, above, the Offeror shall include in its offer an explanation of the circumstances, including the outcome.

This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under section 1001, title 18, United States Code.

b. The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

c. A certification that any of the items in paragraph **a.** of this provision exists will not necessarily result in withholding of an award under this Solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

d. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph **a.** of this provision. The knowledge and information of a Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

e. The certification in paragraph **a.** of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to the other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this Solicitation for default.

I.5 Type of Business Organization (APR 96)

The Offeror represents that--

- (a) It operates as ☐ a corporation incorporated under the laws of the State of _____, ☐ an individual, ☐ a partnership, ☐ a nonprofit organization, or ☐ a joint venture.
- (b) If the offeror is a foreign entity, it operates as ☐ an individual, ☐ a partnership, ☐ a nonprofit organization, ☐ a joint venture, or ☐ a corporation registered for business in _____(country)
- (c) If the offeror is a corporation, it is ☐ independent (not owned or controlled by another company), ☐ owned or controlled by _____corporation company registered for business in _____(state/country)
- (d) If the offeror is owned or controlled by another, state the relationship (e.g., wholly owned subsidiary, etc.):_____
- (e) The offeror agrees to provide additional information relating to the above representations if requested to do so by the Contracting Officer.

I.6 Small Business Concern Certification (JAN 95)

The Offeror represents and certifies as part of its offer that it _____ is, _____ is not a small business concern. (See Section **H.b.**, for the definition of a small business concern.)

I.7 Clean Air and Water Certification (JUN 95)

- a. The Offeror certifies that it is ____ is not ____ listed on the Environmental Protection Agency (EPA) List of Violating Facilities and that it will not knowingly resell this material to any company that is on the EPA List; and
- b. The Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from EPA indicating that any facility at which the Offeror plans to use material purchased under this solicitation is under consideration to be listed on the EPA List of Violating Facilities.

I.8 Authorized Negotiators (JUN 95)

The Offeror represents that the following individuals are authorized to negotiate on its behalf.

Name

Title Telephone

Name

Title Telephone

I.9 Persons Authorized to Request Shipment of Material (FEB 98)

The Offeror shall provide the name(s), title(s), signature(s), and telephone number(s) of representative(s) authorized to sign Section **J.3 Shipping Instructions**:

Typed Name

Title

Signature

Telephone

Typed Name

Title

Signature

Telephone

I.10 Offeror's Billing Address (JUL 96)

The Offeror shall provide its billing address and billing facsimile number below, if different from the address in Section **I.1 Sale of Government Property Negotiated Sales Contract (JUL 97)**.

SECTION J - LIST OF ATTACHMENTS

- J.1 Ferrochromium Available for Sale (JAN 00)**
- J.2 Storage Locations (JAN 00)**
- J.3 Shipping Instructions (JAN 95)**
- J.4 Material Safety Data Sheets**
- J.5 Fedwire Procedures**

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Cr %	C %	Si%	P %	S %
001	Curtis Bay, MD	0057-82-003	666	677,425.00	39.37%	0.03%	44.71%	0.02%	0.01%
002	Curtis Bay MD	0057-82-004	430	449,985.00	40.72%	0.05%	42.40%	0.01%	0.01%
003	Curtis Bay MD	0057-82-005	431	454,155.00	40.62%	0.04%	43.14%	0.01%	0.01%
004	Curtis Bay MD	0057-82-006	434	452,815.00	40.06%	0.04%	44.42%	0.01%	0.01%
005	Curtis Bay MD	0197444-006	662	675,515.00	39.58%	0.03%	43.64%	0.01%	0.01%
006	Curtis Bay MD	0197444-007	839	846,030.00	40.95%	0.04%	43.33%	0.01%	0.01%
007	Curtis Bay MD	0197563-008	439	449,915.00	39.89%	0.05%	44.49%	0.01%	0.01%
008	Curtis Bay MD	0197444-008	650	675,190.00	40.18%	0.04%	43.78%	0.01%	0.01%
009	Curtis Bay MD	0197563-009	439	449,180.00	39.77%	0.05%	43.00%	0.01%	0.01%
010	Curtis Bay MD	0197444-009	554	562,430.00	39.98%	0.02%	44.38%	0.01%	0.01%
011	Curtis Bay MD	0197563-010	440	451,065.00	39.72%	0.03%	45.20%	0.01%	0.01%
012	Curtis Bay MD	0197444-010	557	562,495.00	40.72%	0.04%	43.30%	0.01%	0.01%
013	Curtis Bay MD	0197563-011	445	451,280.00	39.63%	0.04%	44.56%	0.01%	0.01%
014	Curtis Bay MD	0197444-011	671	674,010.00	40.47%	0.04%	42.45%	0.01%	0.01%
015	Curtis Bay MD	0197563-012	785	897,765.00	39.72%	0.03%	44.20%	0.01%	0.01%
016	Curtis Bay MD	0197563-013	769	899,030.00	40.31%	0.05%	43.36%	0.01%	0.01%
017	Curtis Bay MD	0197563-014	789	901,710.00	40.06%	0.01%	43.42%	0.01%	0.01%
018	Curtis Bay MD	0197563-015	783	900,785.00	40.46%	0.01%	43.25%	0.01%	0.01%
019	Curtis Bay MD	0197431-026	560	563,995.00	40.63%	0.05%	42.72%	0.01%	0.01%
020	Curtis Bay MD	0197431-027	579	562,135.00	39.25%	0.03%	45.10%	0.01%	0.01%
021	Curtis Bay MD	0197431-028	804	787,305.00	40.77%	0.03%	43.35%	0.01%	0.01%
022	Curtis Bay MD	0197431-029	687	673,205.00	40.35%	0.03%	43.91%	0.01%	0.01%
023	Curtis Bay MD	057-272-030	640	661,411.00	39.63%	0.02%	43.13%	0.01%	0.01%
024	Curtis Bay MD	0197431-030	672	675,340.00	40.30%	0.03%	44.35%	0.01%	0.01%
Depot Sub-total:				15,354,171					

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Cr %	C %	Si%	P %	S %
025	Curtis Bay MD	0197431-031	444	451,050.00	40.30%	0.04%	43.49%	0.01%	0.01%
026	Curtis Bay MD	057-272-031	560	595,565.00	40.90%	0.04%	42.45%	0.01%	0.01%
027	Curtis Bay MD	057-272-032	480	505,129.00	39.18%	0.04%	44.16%	0.01%	0.01%
028	Curtis Bay MD	0197431-032	515	562,885.00	40.95%	0.03%	41.87%	0.01%	0.01%
029	Curtis Bay MD	197431-033	502	563,015.00	40.18%	0.01%	43.61%	0.01%	0.01%
030	Curtis Bay MD	057-272-033	560	579,247.00	40.63%	0.01%	43.15%	0.01%	0.01%
031	Curtis Bay MD	0197431-034	400	451,155.00	40.30%	0.04%	43.67%	0.01%	0.01%
032	Curtis Bay MD	057-272-034	560	602,468.00	40.17%	0.02%	41.73%	0.01%	0.01%
033	Curtis Bay MD	0197431-035	454	509,950.00	39.11%	0.04%	45.14%	0.01%	0.01%
034	Curtis Bay MD	057-272-035	560	608,164.00	40.06%	0.01%	42.48%	0.01%	0.01%
035	Curtis Bay MD	057-272-036	463	480,136.00	40.61%	0.03%	43.33%	0.01%	0.01%
036	Curtis Bay MD	0197431-036	438	503,020.00	39.45%	0.03%	44.94%	0.01%	0.01%
037	Curtis Bay MD	0197431-037	388	449,320.00	39.10%	0.02%	45.12%	0.01%	0.01%
038	Curtis Bay MD	057-272-037	432	453,478.00	40.64%	0.03%	43.14%	0.01%	0.01%
039	Curtis Bay MD	0057-80-04A	215	225,795.00	39.19%	0.04%	44.85%	0.01%	0.01%
Depot Total:				22,894,548					
040	Binghamton, NY	0197431-017	663	674,075.00	39.63%	0.05%	43.02%	0.01%	0.01%
041	Binghamton, NY	0197431-018	331	337,260.00	39.66%	0.04%	44.13%	0.01%	0.01%
042	Binghamton, NY	0197431-019	327	336,830.00	39.48%	0.03%	44.80%	0.01%	0.01%
043	Binghamton, NY	0197431-020	671	675,520.00	39.81%	0.04%	43.89%	0.01%	0.01%
044	Binghamton, NY	0197431-021	676	674,325.00	39.54%	0.03%	43.95%	0.01%	0.01%
045	Binghamton, NY	0197431-022	664	675,865.00	40.18%	0.04%	43.02%	0.01%	0.01%
046	Binghamton, NY	0197431-023	676	676,725.00	39.05%	0.04%	44.94%	0.01%	0.01%
047	Binghamton, NY	0197431-024	671	673,805.00	40.70%	0.04%	45.68%	0.01%	0.01%
048	Binghamton, NY	0197431-025	667	675,280.00	40.62%	0.04%	43.68%	0.01%	0.01%
Depot Total:				5,399,685					

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Cr %	C %	Si%	P %	S %
049	New Haven, IN	K-1000	601	560,970.00	38.59%	0.01%	45.95%	0.01%	0.01%
050	New Haven, IN	C-3000	580	561,620.00	39.87%	0.05%	44.40%	0.01%	0.01%
051	New Haven, IN	K-1001	593	548,945.00	39.40%	0.02%	44.97%	0.01%	0.01%
052	New Haven, IN	C-3001	561	561,680.00	39.71%	0.05%	44.43%	0.02%	0.01%
053	New Haven, IN	C-3002	555	561,336.00	39.80%	0.04%	44.31%	0.01%	0.01%
054	New Haven, IN	K-1002	800	715,270.00	40.14%	0.05%	43.20%	0.01%	0.01%
055	New Haven, IN	C-3003	554	561,605.00	40.21%	0.03%	42.85%	0.02%	0.01%
056	New Haven, IN	K-1003	720	669,771.00	39.87%	0.04%	43.58%	0.01%	0.01%
057	New Haven, IN	K-1004	680	610,864.00	39.57%	0.03%	44.33%	0.01%	0.01%
058	New Haven, IN	K-2006	477	435,740.00	39.33%	0.05%	44.32%	0.02%	0.01%
059	New Haven, IN	K-2007	511	463,890.00	40.06%	0.02%	44.10%	0.01%	0.01%
060	New Haven, IN	K-2008	610	566,850.00	40.08%	0.05%	44.22%	0.01%	0.01%
061	New Haven, IN	K-2009	838	784,855.00	39.83%	0.04%	44.09%	0.01%	0.01%
062	New Haven, IN	K-2010	585	540,715.00	39.65%	0.02%	44.92%	0.01%	0.01%
063	New Haven, IN	K-2011	592	560,235.00	39.47%	0.03%	45.30%	0.01%	0.01%
064	New Haven, IN	K-2012	589	558,522.00	40.35%	0.05%	42.80%	0.01%	0.01%
065	New Haven, IN	K-2013	600	567,414.00	39.96%	0.04%	43.78%	0.01%	0.01%
066	New Haven, IN	K-2014	600	547,012.00	39.83%	0.03%	44.12%	0.01%	0.01%
067	New Haven, IN	K-2015	608	546,335.00	40.09%	0.03%	43.86%	0.01%	0.01%
068	New Haven, IN	K-2016	608	544,020.00	40.04%	0.03%	43.82%	0.01%	0.01%
069	New Haven, IN	K-2017	640	551,665.00	39.77%	0.05%	44.98%	0.01%	0.01%
070	New Haven, IN	0057-80-301	352	422,400.00	40.73%	0.03%	43.46%	0.01%	0.01%
071	New Haven, IN	0057-80-302	363	435,600.00	40.52%	0.03%	43.05%	0.02%	0.01%
072	New Haven, IN	0057-80-303	347	416,400.00	39.96%	0.02%	43.91%	0.01%	0.01%
073	New Haven, IN	0057-80-304	358	429,600.00	40.42%	0.03%	42.10%	0.01%	0.01%
Depot Sub-total:				13,723,314					

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Cr %	C %	Si%	P %	S %
074	New Haven, IN	0057-80-305	344	412,800.00	40.16%	0.02%	43.70%	0.01%	0.01%
075	New Haven, IN	0057-80-306	341	409,200.00	40.51%	0.03%	43.54%	0.01%	0.01%
076	New Haven, IN	0057-80-311	348	417,600.00	40.25%	0.04%	42.31%	0.01%	0.01%
077	New Haven, IN	0057-80-312	348	417,600.00	40.21%	0.03%	42.33%	0.01%	0.01%
078	New Haven, IN	0057-80-313	357	428,400.00	39.98%	0.02%	42.92%	0.01%	0.01%
079	New Haven, IN	0057-80-314	353	423,600.00	39.36%	0.05%	42.95%	0.01%	0.01%
080	New Haven, IN	0057-80-315	346	415,200.00	40.58%	0.04%	43.28%	0.01%	0.01%
081	New Haven, IN	0057-80-316	341	409,200.00	40.40%	0.02%	42.67%	0.01%	0.01%
082	New Haven, IN	0057-80-317	351	421,200.00	39.63%	0.03%	44.45%	0.01%	0.01%
083	New Haven, IN	0057-80-318	356	427,200.00	39.76%	0.02%	43.18%	0.01%	0.01%
Depot Total:				17,905,314					
084	Pt. Pleasant, WV	0197563-016	396	450,155.00	39.27%	0.03%	43.98%	0.01%	0.01%
085	Pt. Pleasant, WV	0197563-017	585	658,540.00	39.76%	0.02%	44.45%	0.01%	0.01%
086	Pt. Pleasant, WV	0197563-018	592	658,770.00	40.28%	0.03%	43.62%	0.01%	0.01%
Depot Total:				1,767,465					
087	Warren, OH	C-3004	434	451,145.00	40.02%	0.04%	42.82%	0.01%	0.01%
088	Warren, OH	C-3005	448	449,435.00	39.84%	0.04%	43.96%	0.01%	0.01%
089	Warren, OH	K-1005	640	649,834.00	40.36%	0.02%	43.56%	0.01%	0.01%
090	Warren, OH	C-3006	444	449,735.00	39.51%	0.05%	43.12%	0.01%	0.01%
091	Warren, OH	K-1006	562	563,939.00	40.02%	0.04%	42.91%	0.01%	0.01%
092	Warren, OH	C-3007	440	449,950.00	40.08%	0.04%	43.20%	0.01%	0.01%
093	Warren, OH	K-1007	504	525,083.00	40.19%	0.04%	43.03%	0.01%	0.01%
094	Warren, OH	K-1008	489	494,414.00	40.29%	0.02%	42.47%	0.01%	0.01%
Depot Sub-total:				4,033,535					

A. FERROCHROMIUM SILICON

Item No.	Location	Lot No.	Number of Drums	Weight LBS	Cr %	C %	Si%	P %	S %
095	Warren, OH	C-1013A	497	561,595.00	40.09%	0.03%	42.06%	0.03%	0.04%
096	Warren, OH	C-1014A	504	561,565.00	39.92%	0.03%	42.31%	0.03%	0.04%
097	Warren, OH	C-1015A	508	561,430.00	40.35%	0.04%	43.28%	0.02%	0.04%
098	Warren, OH	C-1016A	188	210,560.00	40.61%	0.04%	42.60%	0.03%	0.04%
099	Warren, OH	K-2018	560	484,265.00	40.24%	0.04%	42.07%	0.01%	0.01%
100	Warren, OH	K-2019	640	560,215.00	39.47%	0.03%	46.01%	0.01%	0.01%
101	Warren, OH	K-2020	800	705,505.00	40.53%	0.03%	43.52%	0.01%	0.01%
102	Warren, OH	K-2021	640	578,615.00	39.98%	0.03%	43.30%	0.01%	0.01%
103	Warren, OH	K-2022	640	571,715.00	40.73%	0.05%	43.14%	0.01%	0.01%
104	Warren, OH	K-2023	560	499,705.00	40.63%	0.04%	44.19%	0.01%	0.01%
105	Warren, OH	K-2024	640	553,885.00	39.89%	0.05%	43.40%	0.01%	0.01%
106	Warren, OH	K-2025	640	563,930.00	39.79%	0.03%	43.49%	0.01%	0.01%
107	Warren, OH	K-2026	640	582,930.00	39.79%	0.03%	44.33%	0.01%	0.01%
108	Warren, OH	K-2027	640	563,905.00	39.59%	0.04%	43.92%	0.01%	0.01%
109	Warren, OH	K-2028	640	585,676.00	39.94%	0.04%	43.68%	0.01%	0.01%
110	Warren, OH	K-2029	640	583,615.00	40.15%	0.05%	43.85%	0.01%	0.01%
111	Warren, OH	K-2046	560	582,292.00	40.32%	0.05%	42.34%	0.01%	0.01%
112	Warren, OH	K-2047	640	669,105.00	40.58%	0.04%	44.22%	0.01%	0.01%
113	Warren, OH	K-2048	480	506,346.00	40.69%	0.05%	41.84%	0.01%	0.01%
114	Warren, OH	K-2049	560	597,246.00	40.45%	0.03%	44.11%	0.01%	0.01%
115	Warren, OH	K-2050	560	575,275.00	40.45%	0.01%	43.19%	0.01%	0.01%
116	Warren, OH	K-2051	320	335,784.00	40.45%	0.01%	43.19%	0.01%	0.01%
117	Warren, OH	K-2052	526	549,652.00	40.28%	0.04%	43.36%	0.01%	0.01%
118	Warren, OH	0057-80-319	352	422,400.00	39.29%	0.04%	43.27%	0.01%	0.01%
119	Warren, OH	0057-80-320	351	421,200.00	39.27%	0.04%	42.91%	0.01%	0.01%
Depot Total:				17,421,946					

A. FERROCHROMIUM SILICON

Item No.	Location	Pile No.	Quantity ST	Quantity STCr	Cr %	C %	Si %	P %	S %
120	Warren Depot Warren, OH	003A	3,066	1,228	40.06%	0.03%	43.53%	0.01%	0.01%
121	Warren Depot Warren, OH	003B	5,419	2,166	39.97%	0.05%	44.09%	0.01%	0.01%
Depot Total:			8,485	3,394					

B. LOW CARBON FERROCHROMIUM LOCATED AT SHARONVILLE, OH

Item No.	Pile No.	Quantity (ST)	Quantity (STCr)	Cr %	C %	Si %	P %	S %
122	2	1,214	811	66.82	0.06	0.68	0.03	0.01
123	5	1,621	1,115	68.8	0.07	0.75	0.01	0.01
124	6	2,293	1,532	66.82	0.06	0.68	0.03	0.01
	Totals	5,128	3,458					

C. HIGH CARBON FERROCHROMIUM LOCATED AT CHARLESTON, SC

Item No.	Pile No.	Quantity (ST)	Quantity (STCr)	Cr %	C %	Si %	P %	S %
143	FC4	50,828	34,944	68.75	6.54	0.74	0.02	0.04
145	FC2	19,251	12,640	65.66	6.31	1.94	0.02	0.05
	Totals	70,079	47,584					

J.2 STORAGE LOCATIONS (JAN 00)

<u>MATERIAL</u>	<u>LOCATION(S)</u>	<u>HOURS</u>	<u>DAYS</u>
High Carbon Ferrochromium	Charleston, SC	12:00 Noon – 2:30 PM 8:30 AM – 2:30 PM 8:30 AM – 12:00 Noon	Monday Tuesday – Thursday Friday
Low Carbon Ferrochromium	Sharonville, OH	12:00 Noon – 2:30 PM 8:30 AM – 2:30 PM 8:30 AM – 2:30 PM	Monday Tuesday – Thursday Friday
Ferrochromium Silicon	Baltimore, Md Binghamton, NY Point Pleasant, WV	7:00 AM – 3:00 PM 8:00 AM – 3:00 PM	Monday - Thursday Friday
Ferrochromium Silicon	New Haven, IN Warren, OH	7:15 AM – 3:15 PM 8:15 AM – 3:15 PM	Monday - Thursday Friday

Notes:

- (1) Charleston, SC and Sharonville, OH are unstaffed locations.***
- (2) Truck is available mode of transportation for all of the locations above; however, railcar is also available for Charleston, SC, Binghamton, NY, New Haven, IN, Point Pleasant, WV, and Warren, OH.***
- (3) For the drummed ferrochromium silicon, every location above except Warren, OH and New Haven, IN, has drums stored on pallets.***

POINT OF CONTACT

Defense Logistics Agency
Defense National Stockpile Center
ATTN: Lancelot P. Kualii
8725 John J. Kingman Road, Suite 4616
Ft. Belvoir, VA 22060-6223

Telephone Number: (703) 767-7607
Facsimile Number: (703) 767-7608

J.3 Shipping Instructions (JAN 95)

DLA-FERROCHROMIUM-003

Shipping Request Number: _____

SHIPPING INSTRUCTIONS

1. a. Contractor: _____
b. Point of Contact: _____ c. Telephone No.: _____
2. a. DNSC Contract No: SP0833- _____ b. Commodity: _____
3. Item/Pile: _____
4. Depot: _____
5. a. Quantity: _____
b. Unit Price: _____ c. Total Dollar Value: _____
6. Shipping Method: _____
7. a. Carrier Name: _____
b. Point of Contact: _____ c. Telephone No.: _____
8. Date Shipment Desired: _____
9. Ship To: _____

10. Minimum Load: _____
11. a. Outloader: _____ b. Telephone No.: _____
12. a. Sampler: _____ b. Telephone No.: _____
13. Copy of Payment Attached: Yes _____ No _____
14. Remarks: _____

15. Contractor's Signature: _____
Date Telephone
16. Release Approved and Authorized: _____
Contracting Officer Date

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD
SUITE 3339
FORT BELVOIR, VA 22060-6223

EMERGENCY TELEPHONE NUMBER:
1-800-424-9300 (NORTH AMERICA)
1-703-527-3887 (INTERNATIONAL)

SUBSTANCE: FERROCHROMIUM, HIGH CARBON

TRADE NAMES/SYNONYMS:
DLANA386

CREATION DATE: Jul 24 1992
REVISION DATE: Jun 02 1999

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: CHROMIUM
CAS NUMBER: 7440-47-3
EC NUMBER (EINECS): 231-157-5
PERCENTAGE: 62.0-71.0
COMPONENT: CARBON
CAS NUMBER: 7440-44-0
EC NUMBER (EINECS): 231-153-3
PERCENTAGE: <8.0

COMPONENT: SILICON
CAS NUMBER: 7440-21-3
EC NUMBER (EINECS): 231-130-8
PERCENTAGE: <3.0

COMPONENT: MANGANESE
CAS NUMBER: 7439-96-5
EC NUMBER (EINECS): 231-105-1
PERCENTAGE: <0.75

COMPONENT: SULFUR
CAS NUMBER: 7704-34-9
EC NUMBER (EINECS): 231-722-6
PERCENTAGE: <0.05

COMPONENT: PHOSPHORUS, WHITE
CAS NUMBER: 7723-14-0
EC NUMBER (EINECS): 231-768-7
PERCENTAGE: <0.025

COMPONENT: ANTIMONY
CAS NUMBER: 7440-36-0
EC NUMBER (EINECS): 231-146-5

PERCENTAGE: <0.01
COMPONENT: ARSENIC
CAS NUMBER: 7440-38-2
EC NUMBER (EINECS): 231-148-6
PERCENTAGE: <0.005

COMPONENT: LEAD
CAS NUMBER: 7439-92-1
EC NUMBER (EINECS): 231-100-4
PERCENTAGE: <0.005

COMPONENT: TIN
CAS NUMBER: 7440-31-5
EC NUMBER (EINECS): 231-141-8
PERCENTAGE: <0.005

COMPONENT: ZINC
CAS NUMBER: 7440-66-6
EC NUMBER (EINECS): 231-175-3
PERCENTAGE: <0.005

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=3 REACTIVITY=0

EC CLASSIFICATION (CALCULATED): Not determined.

EMERGENCY OVERVIEW:

PHYSICAL DESCRIPTION: Hard, dense lumps.

MAJOR HEALTH HAZARDS: No significant target effects reported.

PHYSICAL HAZARDS: Flammable solid. Extremely flammable. May ignite spontaneously on exposure to air. Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

CARCINOGEN STATUS:

OSHA: N

NTP: N

IARC: N

SECTION 4 FIRST AID MEASURES

INHALATION: Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

SKIN CONTACT: Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

EYE CONTACT: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention, if needed.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire and explosion hazard in bulk form. Dust/air mixtures may ignite or explode. Finely divided material may ignite spontaneously. May ignite on exposure to air.

EXTINGUISHING MEDIA: regular dry chemical, sand, earth, regular foam, water

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products.

SECTION 6 ACCIDENTAL RELEASE MEASURES

WATER RELEASE:

Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

OCCUPATIONAL RELEASE:

Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Small spills: Collect spilled material in appropriate container for disposal. Move containers away from spill to a safe area. Large spills: Wet down area with water. Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local

Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

SECTION 7 HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

FERROCHROMIUM, HIGH CARBON:

SILICON:

- 5 mg/m3 OSHA TWA (respirable particulate)
- 15 mg/m3 OSHA TWA (total particulate)
- 10 mg/m3 OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)
- 10 mg/m3 ACGIH TWA (total particulate) (no asbestos and <1% crystalline silica)
- 5 mg/m3 NIOSH recommended TWA 10 hour(s) (respirable particulate)
- 10 mg/m3 NIOSH recommended TWA 10 hour(s) (total particulate)
- 10 mg/m3 UK OES TWA (total inhalable dust)
- 4 mg/m3 UK OES TWA (respirable dust)

MEASUREMENT METHOD: Particulate filter; Gravimetric; NIOSH III # 0500, Nuisance Dust (total), # 0600 (respirable)

CHROMIUM:

- 1 mg/m3 OSHA TWA
- 0.5 mg/m3 ACGIH TWA
- 0.5 mg/m3 NIOSH recommended TWA 10 hour(s)
- 0.5 mg/m3 UK OES TWA

MEASUREMENT METHOD: Particulate filter; Acid; Atomic absorption spectrometry; NIOSH III # 7024

VENTILATION: Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from

minimum to maximum. Consider warning properties before use.

Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter. Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Hard, dense lumps.

BOILING POINT: Not applicable

MELTING POINT: Not available

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY: Not available

WATER SOLUBILITY: Not available

PH: Not applicable

VOLATILITY: Not applicable

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

INCOMPATIBILITIES: bases, oxidizing materials, halogens, peroxides, metals, combustible materials, acids, reducing agents, metal carbide, metal salts

CHROMIUM:

ALKALI CARBONATES: Attacked.

ALKALIES (CAUSTIC): Attacked.

AMMONIUM NITRATE (FUSED): Violent or explosive reaction.

BROMINE PENTAFLUORIDE: Violent reaction and possible ignition.

HYDROGEN PEROXIDE: Violent decomposition reaction.

LITHIUM (MOLTEN): Vigorous reaction at elevated temperatures.

NITROGEN OXIDE: Incandescent reaction.

OXIDIZERS (STRONG): Fire and explosion hazard.

POTASSIUM CHLORATE (FUSED): Vigorous incandescent reaction.

SULPHUR DIOXIDE: Incandescent reaction.

SILICON:

ALUMINUM + LEAD OXIDE: Mixture may explode on heating.

BROMINE TRIFLUORIDE: Ignition reaction.

CESIUM ACETYLIDE: Vigorous reaction on heating.

CALCIUM: Violently incandescent reaction above 1050 C, after a short delay.

CHLORINE (GASEOUS): Ignition on contact at ambient temperatures.
CHLORINE TRIFLUORIDE: Ignition reaction.
COBALT TRIFLUORIDE: Exothermic reaction, attaining red heat on warming.
FLUORINE: Ignites at room temperature; attains temperatures above 1400 C.
HYDROFLUORIC ACID: Attacks silicon.
HYDROFLUORIC ACID + NITRIC ACID MIXTURE: Attacks silicon.
IODINE PENTAFLUORIDE: Incandescent reaction.
IRIDIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.
LEAD OXIDE: An initiating mixture of silicon and lead dioxide (2:1) attains a temperature around 1100 C after ignition by small flame.
MANGANESE TRIFLUORIDE: Violent reaction.
METAL CARBONATES (ALKALI): Exothermic reaction on heating, attaining incandescence and evolving carbon monoxide.
MOLYBDENUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.
NITROSYL FLUORIDE: Reacts with incandescence.
OSMIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.
OXIDIZERS (STRONG): Fire and explosion hazard.
OXYGEN DIFLUORIDE: Generates sparks on heating.
PEROXYFORMIC ACID: Traces of manganese dioxide may promote oxidation with ignition.
RHENIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.
RUBIDIUM ACETYLIDE: Reacts vigorously on warming.
SILVER FLUORIDE: Violent reaction.
SODIUM-POTASSIUM ALLOY: The reaction forms sodium silicide, which is spontaneously flammable in air.
URANIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.
WATER: Combustible or explosive reaction at sufficiently high temperatures and pressures.

CARBON:

ALKALI METALS: Contact may result in an exothermic reaction with ignition or an explosion.
AMMONIUM NITRATE: Possible explosion when heated.
AMMONIUM PERCHLORATE: Possible explosion on heating.
BROMATES: Contact is likely to result in ignition or an explosion.
CALCIUM HYPOCHLORITE: Possible explosion on heating.
CHLORATES: Contact is likely to result in ignition or an explosion.
CHLORINE MONOXIDE: Explodes.

CHROMATES: Incompatible.
DICHLORINE OXIDE: Explosion reaction.
HALOGENS: Contact of carbon with any halogen is liable to result in ignition or an explosion.
INTERHALOGENS: Contact of carbon with any interhalogen is liable to result in ignition or an explosion.
IODATES: Contact is likely to result in ignition or an explosion.
IODINE PENTOXIDE: Explodes when warmed.
METAL NITRATES: Contact is likely to result in ignition or an explosion.
NITRIC ACID: Violent reaction.
NITROGEN OXIDE: Ignition with incandescence.
NITROGEN TRIFLUORIDE: Explosion at reduced temperatures.
OILS (UNSATURATED): Fire and explosion hazard.
OXIDES: Contact with many oxides is likely to result in ignition or an explosion.
OXIDIZERS (STRONG): Fire and explosion hazard.
OXOSALTS: Contact is likely to result in ignition or an explosion.
OXYGEN: May result in ignition or an explosion.
OXYGEN DIFLUORIDE: Possible explosion.
OZONE: Fire hazard.
PEROXIDES: Contact is likely to result in ignition or an explosion.
PEROXYFORMIC ACID: Violent oxidation.
PEROXYFUROIC ACID: Explosive decomposition.
POTASSIUM PERMANGANATE: Ignition on heating.
SODIUM SULFIDE: May undergo spontaneous heating.
TRIOXYGEN DIFLUORIDE: Ignition with possible explosion.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

CHROMIUM:

TOXICITY DATA:

27500 ug/kg unreported-rat LD50

CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3 (Chromium metal); ACGIH: A4 -Not Classifiable as a Human Carcinogen

ACUTE TOXICITY LEVEL: Insufficient Data.

TUMORIGENIC DATA:

2160 ug/kg intravenous-rat TDLo/6 week(s) intermittent; 1200 ug/kg implant-rat TDLo/6 week(s) intermittent; 75 mg/kg implant-rabbit TDLo

ADDITIONAL DATA: May cross the placenta. May be excreted in breast milk.

CARBON:

TOXICITY DATA:

440 mg/kg intravenous-mouse LD50

ACUTE TOXICITY LEVEL: Insufficient Data.

REPRODUCTIVE EFFECTS DATA:

167 mg/kg subcutaneous-rat TDLo 8 day(s) pregnant female continuous

SILICON:

IRRITATION DATA:

3 mg eyes-rabbit mild

TOXICITY DATA:

3160 mg/kg oral-rat LD50; 500 mg/kg intraperitoneal-rat LDLo

ACUTE TOXICITY LEVEL:

Moderately Toxic: ingestion

ADDITIONAL DATA: Nephrotoxicity has been demonstrated with excessive exposure to silicon.

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

CHROMIUM: High concentrations of dusts or fumes may cause irritation.

CARBON: Inhalation of dust may cause slight mucous membrane irritation.

SILICON: Dust may cause respiratory and mucous membrane irritation. Intratracheal administration of 25 mg in rabbits produced slight pulmonary lesions.

CHRONIC EXPOSURE:

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to result in ulceration and perforation of the nasal septum, irritation of the throat and lower respiratory tract, less commonly in gastrointestinal disturbances, blood changes, pulmonary sensitization, pulmonary pneumoconiosis or fibrosis, and rarely liver effects. These effects have not been reported from exposure to the metal per se.

CARBON: Repeated or prolonged exposure may cause slight irritation and pulmonary disorders.

SILICON: Inert dusts may cause excessive production of mucous, mucous gland hypertrophy and increased airway resistance and may contribute to chronic bronchitis.

SKIN CONTACT:

ACUTE EXPOSURE:

CHROMIUM: Contact with dusts or powder may cause irritation.

CARBON: Contact may cause transient irritation.

SILICON: May cause mechanical irritation.

CHRONIC EXPOSURE:

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to cause various types of dermatitis, including eczema, "chrome holes", sensitization, and, in contact with damaged skin, kidney damage. These effects have not been reported from exposure to the metal per se.

CARBON: No data available.

SILICON: No data available.

EYE CONTACT:

ACUTE EXPOSURE:

CHROMIUM: Contact with dusts or powders may cause irritation.

CARBON: Contact with dust may cause mechanical irritation.

SILICON: Silicon dust may cause irritation.

CHRONIC EXPOSURE:

CHROMIUM: Repeated or prolonged exposure to some chromium compounds may cause conjunctivitis and lacrimation. These effects have not been reported from exposure to the metal per se.

CARBON: Repeated or prolonged exposure may cause mechanical irritation.

SILICON: No data available.

INGESTION:

ACUTE EXPOSURE:

CHROMIUM: Chromium metal is poorly absorbed by the intestinal tract. Absorption of sufficient amounts of some chromium compounds may result in dizziness, intense thirst, abdominal pain, vomiting, shock, oliguria or anuria, and uremia, which may be fatal.

CARBON: Extremely large doses may produce gastrointestinal disturbances.

SILICON: The lethal dose reported in rats was 3160 mg/kg; the symptoms were not reported.

CHRONIC EXPOSURE:

CHROMIUM: No data available.

CARBON: No data available.

SILICON: No data available.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101 SHIPPING NAME-UN NUMBER:

Metal powders, flammable, n.o.s.-UN3089

U.S. DOT 49 CFR 172.101 HAZARD CLASS OR DIVISION:
4.1

U.S. DOT 49 CFR 172.101 PACKING GROUP:
III

U.S. DOT 49 CFR 172.101 AND SUBPART E LABELING REQUIREMENTS:
Flammable solid

U.S. DOT 49 CFR 172.101 PACKAGING AUTHORIZATIONS:
EXCEPTIONS: 49 CFR 173.151
NON-BULK PACKAGING: 49 CFR 173.213
BULK PACKAGING: 49 CFR 173.240

U.S. DOT 49 CFR 172.101 QUANTITY LIMITATIONS:
PASSENGER AIRCRAFT OR RAILCAR: 25 kg
CARGO AIRCRAFT ONLY: 100 kg

LAND TRANSPORT ADR/RID:
SUBSTANCE NAME: Metal powder, flammable, n.o.s.
UN NUMBER: UN3089
ADR/RID CLASS: 4.1
ITEM NUMBER: 13(c)
WARNING SIGN/LABEL: 4.1
HAZARD ID NUMBER: 40

AIR TRANSPORT IATA/ICAO:
CORRECT TECHNICAL NAME: Metal powder, flammable, n.o.s.
UN/ID NUMBER: UN3089
IATA/ICAO CLASS: 4.1
PACKAGING GROUP: III
LABEL: Flammable solid

MARITIME TRANSPORT IMDG:
CORRECT TECHNICAL NAME: Metal powders, flammable, n.o.s.
UN/ID NUMBER: UN3089
IMDG CLASS: 4.1
PACKAGING GROUP: III
EmS No.: 4.1-02
MARINE POLLUTANT: N

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:
TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.
CERCLA SECTION 103 (40CFR302.4): Y
CHROMIUM: 5000 LBS RQ
PHOSPHORUS, WHITE: 1 LBS RQ
ANTIMONY: 5000 LBS RQ
ARSENIC: 1 LBS RQ
LEAD: 10 LBS RQ

(solid metal particles < 100 micrometer diameter (0.004 inches))

ZINC: 1000 LBS RQ

SARA SECTION 302 (40CFR355.30): Y

PHOSPHORUS, WHITE: 100 LBS TPQ

SARA SECTION 304 (40CFR355.40): Y

PHOSPHORUS, WHITE: 1 LBS RQ

SARA SECTION 313 (40CFR372.65): Y

CHROMIUM

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: N

CHRONIC: N

FIRE: Y

REACTIVE: N

SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:

California Proposition 65: Y

Known to the state of California to cause the following:

ARSENIC

Cancer (Feb 27, 1987)

LEAD

Cancer (Oct 01, 1992)

Developmental toxicity (Feb 27, 1987)

Male reproductive toxicity (Feb 27, 1987)

Female reproductive toxicity (Feb 27, 1987)

LEAD COMPOUNDS

Cancer (Oct 01, 1992)

Developmental toxicity (Feb 27, 1987)

Male reproductive toxicity (Feb 27, 1987)

Female reproductive toxicity (Feb 27, 1987)

EUROPEAN REGULATIONS:

EC NUMBER: Not assigned.

SECTION 16 OTHER INFORMATION

MSDS SUMMARY OF CHANGES

SECTION 3 HAZARDS IDENTIFICATION

SECTION 6 ACCIDENTAL RELEASE MEASURES

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SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTER
8725 JOHN J. KINGMAN ROAD
SUITE 3339
FORT BELVOIR, VA 22060-6223

EMERGENCY TELEPHONE NUMBER:
1-800-424-9300 (NORTH AMERICA)
1-703-527-3887 (INTERNATIONAL)

SUBSTANCE: FERROCHROMIUM, LOW CARBON

TRADE NAMES/SYNONYMS:
DLANA385

CREATION DATE: Jul 29 1992
REVISION DATE: Jun 02 1999

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: CHROMIUM
CAS NUMBER: 7440-47-3
EC NUMBER (EINECS): 231-157-5
PERCENTAGE: >67.0

COMPONENT: SILICON
CAS NUMBER: 7440-21-3
EC NUMBER (EINECS): 231-130-8
PERCENTAGE: <1.0

COMPONENT: CARBON
CAS NUMBER: 7440-44-0
EC NUMBER (EINECS): 231-153-3
PERCENTAGE: <0.05

COMPONENT: PHOSPHORUS, WHITE
CAS NUMBER: 7723-14-0
EC NUMBER (EINECS): 231-768-7
PERCENTAGE: <0.03

COMPONENT: SULFUR
CAS NUMBER: 7704-34-9
EC NUMBER (EINECS): 231-722-6
PERCENTAGE: <0.025

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=3 REACTIVITY=0

EC CLASSIFICATION (CALCULATED): Not determined.

EMERGENCY OVERVIEW:

PHYSICAL DESCRIPTION: Hard, dense lumps, bricks, briquettes or pellets.

MAJOR HEALTH HAZARDS: No significant target effects reported.

PHYSICAL HAZARDS: Extremely flammable. May ignite spontaneously on exposure to air. Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS:**INHALATION:**

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

CARCINOGEN STATUS:

OSHA: N

NTP: N

IARC: N

SECTION 4 FIRST AID MEASURES

INHALATION: Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

SKIN CONTACT: Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

EYE CONTACT: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention, if needed.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire and explosion hazard in bulk form. Dust/air mixtures may ignite or explode. Finely divided material may ignite spontaneously. May ignite on exposure to air.

EXTINGUISHING MEDIA: regular dry chemical, sand, earth, regular foam, water

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Small spills: Collect spilled material in appropriate container for disposal. Move containers away from spill to a safe area. Large spills: Wet down area with water. Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

SECTION 7 HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

CHROMIUM:

- 1 mg/m³ OSHA TWA
- 0.5 mg/m³ ACGIH TWA
- 0.5 mg/m³ NIOSH recommended TWA 10 hour(s)
- 0.5 mg/m³ UK OES TWA

MEASUREMENT METHOD: Particulate filter; Acid; Atomic absorption spectrometry; NIOSH III # 7024

VENTILATION: Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Hard, dense lumps, bricks, briquettes or pellets.

BOILING POINT: Not applicable

MELTING POINT: Not available

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY: Not available

WATER SOLUBILITY: Not available

PH: Not applicable

VOLATILITY: Not applicable

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

INCOMPATIBILITIES: bases, oxidizing materials, halogens, peroxides, metals

CHROMIUM:

ALKALI CARBONATES: Attacked.

ALKALIES (CAUSTIC): Attacked.

AMMONIUM NITRATE (FUSED): Violent or explosive reaction.

BROMINE PENTAFLUORIDE: Violent reaction and possible ignition.

HYDROGEN PEROXIDE: Violent decomposition reaction.

LITHIUM (MOLTEN): Vigorous reaction at elevated temperatures.

NITROGEN OXIDE: Incandescent reaction.

OXIDIZERS (STRONG): Fire and explosion hazard.

POTASSIUM CHLORATE (FUSED): Vigorous incandescent reaction.

SULPHUR DIOXIDE: Incandescent reaction.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

CHROMIUM:

TOXICITY DATA:

27500 ug/kg unreported-rat LD50

CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3 (Chromium metal); ACGIH: A4 -Not Classifiable as a Human Carcinogen

ACUTE TOXICITY LEVEL: Insufficient Data.

TUMORIGENIC DATA:

2160 ug/kg intravenous-rat TDLo/6 week(s) intermittent; 1200 ug/kg implant-rat TDLo/6 week(s) intermittent; 75 mg/kg implant-rabbit TDLo

ADDITIONAL DATA: May cross the placenta. May be excreted in breast milk.

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

CHROMIUM: High concentrations of dusts or fumes may cause irritation.

CHRONIC EXPOSURE:

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to result in ulceration and perforation of the nasal septum, irritation of the throat and lower respiratory tract, less commonly in gastrointestinal disturbances, blood changes, pulmonary sensitization, pulmonary pneumoconiosis or fibrosis, and rarely liver effects. These effects have not been reported from exposure to the metal per se. SKIN CONTACT:

ACUTE EXPOSURE:

CHROMIUM: Contact with dusts or powder may cause irritation.

CHRONIC EXPOSURE:

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to cause various types of dermatitis, including eczema, "chrome holes", sensitization, and, in contact with damaged skin, kidney damage. These effects have not been reported from exposure to the metal per se.

EYE CONTACT:

ACUTE EXPOSURE:

CHROMIUM: Contact with dusts or powders may cause irritation.

CHRONIC EXPOSURE:

CHROMIUM: Repeated or prolonged exposure to some chromium compounds may cause conjunctivitis and lacrimation. These effects have not been reported from exposure to the metal per se.

INGESTION:

ACUTE EXPOSURE:

CHROMIUM: Chromium metal is poorly absorbed by the intestinal tract.

Absorption of sufficient amounts of some chromium compounds may result in dizziness, intense thirst, abdominal pain, vomiting, shock, oliguria or anuria, and uremia, which may be fatal.

CHRONIC EXPOSURE:

CHROMIUM: No data available.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101 SHIPPING NAME-UN NUMBER:
Metal powders, flammable, n.o.s.-UN3089

U.S. DOT 49 CFR 172.101 HAZARD CLASS OR DIVISION:
4.1

U.S. DOT 49 CFR 172.101 PACKING GROUP:
III

U.S. DOT 49 CFR 172.101 AND SUBPART E LABELING REQUIREMENTS:
Flammable solid

U.S. DOT 49 CFR 172.101 PACKAGING AUTHORIZATIONS:
EXCEPTIONS: 49 CFR 173.151
NON-BULK PACKAGING: 49 CFR 173.213
BULK PACKAGING: 49 CFR 173.240

U.S. DOT 49 CFR 172.101 QUANTITY LIMITATIONS:
PASSENGER AIRCRAFT OR RAILCAR: 25 kg
CARGO AIRCRAFT ONLY: 100 kg

LAND TRANSPORT ADR/RID:
SUBSTANCE NAME: Metal powder, flammable, n.o.s.
UN NUMBER: UN3089
ADR/RID CLASS: 4.1
ITEM NUMBER: 13(c)
WARNING SIGN/LABEL: 4.1
HAZARD ID NUMBER: 40

AIR TRANSPORT IATA/ICAO:
CORRECT TECHNICAL NAME: Metal powder, flammable, n.o.s.
UN/ID NUMBER: UN3089

IATA/ICAO CLASS: 4.1
PACKAGING GROUP: III
LABEL: Flammable solid

MARITIME TRANSPORT IMDG:
CORRECT TECHNICAL NAME: Metal powders, flammable, n.o.s.
UN/ID NUMBER: UN3089
IMDG CLASS: 4.1
PACKAGING GROUP: III
EmS No.: 4.1-02
MARINE POLLUTANT: N

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): Y

CHROMIUM: 5000 LBS RQ

PHOSPHORUS, WHITE: 1 LBS RQ

SARA SECTION 302 (40CFR355.30): Y

PHOSPHORUS, WHITE: 100 LBS TPQ

SARA SECTION 304 (40CFR355.40): Y

PHOSPHORUS, WHITE: 1 LBS RQ

SARA SECTION 313 (40CFR372.65): Y

CHROMIUM

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: N

CHRONIC: N

FIRE: Y

REACTIVE: N

SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:

California Proposition 65: N

EUROPEAN REGULATIONS:

EC NUMBER: Not assigned.

SECTION 16 OTHER INFORMATION

MSDS SUMMARY OF CHANGES

SECTION 3 HAZARDS IDENTIFICATION

SECTION 6 ACCIDENTAL RELEASE MEASURES

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SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
-----DEFENSE LOGISTICS AGENCY
DEFENSE NATIONAL STOCKPILE CENTEREMERGENCY TELEPHONE NUMBER:
1-800-424-9300 (NORTH AMERICA)8725 JOHN J. KINGMAN ROAD
SUITE 3339
FORT BELVOIR, VA 22060-6223

1-703-527-3887 (INTERNATIONAL)

SUBSTANCE: FERROCHROMIUM, SILICON

TRADE NAMES/SYNONYMS:
DLANA393CREATION DATE: Jul 24 1992
REVISION DATE: Jun 02 1999-----
SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: SILICON

CAS NUMBER: 7440-21-3
EC NUMBER (EINECS): 231-130-8
PERCENTAGE: 42.0-46.0
COMPONENT: CHROMIUM
CAS NUMBER: 7440-47-3
EC NUMBER (EINECS): 231-157-5
PERCENTAGE: 39.0-41.0COMPONENT: CARBON
CAS NUMBER: 7440-44-0
EC NUMBER (EINECS): 231-153-3
PERCENTAGE: <0.05COMPONENT: SULFUR
CAS NUMBER: 7704-34-9
EC NUMBER (EINECS): 231-722-6
PERCENTAGE: <0.05COMPONENT: PHOSPHORUS, WHITE
CAS NUMBER: 7723-14-0
EC NUMBER (EINECS): 231-768-7
PERCENTAGE: <0.025-----
SECTION 3 HAZARDS IDENTIFICATION
-----NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=3 REACTIVITY=0
EC CLASSIFICATION (CALCULATED): Not determined.

EMERGENCY OVERVIEW:

PHYSICAL DESCRIPTION: Lumps.

MAJOR HEALTH HAZARDS: No significant target effects reported.

PHYSICAL HAZARDS: Flammable solid. Extremely flammable. May ignite spontaneously on exposure to air. Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: no information on significant adverse effects

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

CARCINOGEN STATUS:

OSHA: N

NTP: N

IARC: N

SECTION 4 FIRST AID MEASURES

INHALATION: Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

SKIN CONTACT: Remove contaminated clothing, jewelry, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.

EYE CONTACT: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention, if needed.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire and explosion hazard in bulk form. Dust/air mixtures may ignite or explode. Finely divided material may ignite spontaneously. May ignite on exposure to air.

EXTINGUISHING MEDIA: regular dry chemical, sand, earth, regular foam, water
Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Avoid heat, flames, sparks and other sources of ignition. Do not touch spilled material. Small spills: Collect spilled material in appropriate container for disposal. Move containers away from spill to a safe area. Large spills: Wet down area with water. Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

SECTION 7 HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

FERROCHROMIUM, SILICON:

SILICON:

- 5 mg/m3 OSHA TWA (respirable particulate)
- 15 mg/m3 OSHA TWA (total particulate)
- 10 mg/m3 OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)
- 10 mg/m3 ACGIH TWA (total particulate) (no asbestos and <1% crystalline silica)
- 5 mg/m3 NIOSH recommended TWA 10 hour(s) (respirable particulate)
- 10 mg/m3 NIOSH recommended TWA 10 hour(s) (total particulate)
- 10 mg/m3 UK OES TWA (total inhalable dust)
- 4 mg/m3 UK OES TWA (respirable dust)

MEASUREMENT METHOD: Particulate filter; Gravimetric; NIOSH III # 0500, Nuisance Dust (total), # 0600 (respirable)

CHROMIUM:

- 1 mg/m3 OSHA TWA

0.5 mg/m3 ACGIH TWA

0.5 mg/m3 NIOSH recommended TWA 10 hour(s)

0.5 mg/m3 UK OES TWA

MEASUREMENT METHOD: Particulate filter; Acid; Atomic absorption spectrometry; NIOSH III # 7024

VENTILATION: Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Lumps.

BOILING POINT: Not applicable

MELTING POINT: Not available

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY: Not available

WATER SOLUBILITY: Not available

PH: Not applicable

VOLATILITY: Not applicable

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

INCOMPATIBILITIES: halogens, metal carbide, metals, oxidizing materials, metal salts, acids, bases, peroxides

SILICON:

ALUMINUM + LEAD OXIDE: Mixture may explode on heating.

BROMINE TRIFLUORIDE: Ignition reaction.

CESIUM ACETYLIDE: Vigorous reaction on heating.

CALCIUM: Violently incandescent reaction above 1050 C, after a short delay.

CHLORINE (GASEOUS): Ignition on contact at ambient temperatures.

CHLORINE TRIFLUORIDE: Ignition reaction.

COBALT TRIFLUORIDE: Exothermic reaction, attaining red heat on warming.

FLUORINE: Ignites at room temperature; attains temperatures above 1400 C.

HYDROFLUORIC ACID: Attacks silicon.

HYDROFLUORIC ACID + NITRIC ACID MIXTURE: Attacks silicon.

IODINE PENTAFLUORIDE: Incandescent reaction.

IRIDIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.

LEAD OXIDE: An initiating mixture of silicon and lead dioxide (2:1) attains a temperature around 1100 C after ignition by small flame.

MANGANESE TRIFLUORIDE: Violent reaction.

METAL CARBONATES (ALKALI): Exothermic reaction on heating, attaining incandescence and evolving carbon monoxide.

MOLYBDENUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.

NITROSYL FLUORIDE: Reacts with incandescence.

OSMIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.

OXIDIZERS (STRONG): Fire and explosion hazard.

OXYGEN DIFLUORIDE: Generates sparks on heating.

PEROXYFORMIC ACID: Traces of manganese dioxide may promote oxidation with ignition.

RHENIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.

RUBIDIUM ACETYLIDE: Reacts vigorously on warming.

SILVER FLUORIDE: Violent reaction.

SODIUM-POTASSIUM ALLOY: The reaction forms sodium silicide, which is spontaneously flammable in air.

URANIUM HEXAFLUORIDE: During reduction to pentafluoride, hexafluoride must not be condensed directly onto undiluted silicon powder or explosion may occur.

WATER: Combustible or explosive reaction at sufficiently high temperatures and pressures.

CHROMIUM:

ALKALI CARBONATES: Attacked.
ALKALIES (CAUSTIC): Attacked.
AMMONIUM NITRATE (FUSED): Violent or explosive reaction.
BROMINE PENTAFLUORIDE: Violent reaction and possible ignition.
HYDROGEN PEROXIDE: Violent decomposition reaction.
LITHIUM (MOLTEN): Vigorous reaction at elevated temperatures.
NITROGEN OXIDE: Incandescent reaction.
OXIDIZERS (STRONG): Fire and explosion hazard.
POTASSIUM CHLORATE (FUSED): Vigorous incandescent reaction.
SULPHUR DIOXIDE: Incandescent reaction.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

SILICON:

IRRITATION DATA:

3 mg eyes-rabbit mild

TOXICITY DATA:

3160 mg/kg oral-rat LD50; 500 mg/kg intraperitoneal-rat LDLo

ACUTE TOXICITY LEVEL:

Moderately Toxic: ingestion

ADDITIONAL DATA: Nephrotoxicity has been demonstrated with excessive exposure to silicon.

CHROMIUM:

TOXICITY DATA:

27500 ug/kg unreported-rat LD50

CARCINOGEN STATUS: IARC: Human Inadequate Evidence, Animal Inadequate Evidence, Group 3 (Chromium metal); ACGIH: A4 -Not Classifiable as a Human Carcinogen

ACUTE TOXICITY LEVEL: Insufficient Data.

TUMORIGENIC DATA:

2160 ug/kg intravenous-rat TDLo/6 week(s) intermittent; 1200 ug/kg

implant-rat TDLo/6 week(s) intermittent; 75 mg/kg implant-rabbit TDLo

ADDITIONAL DATA: May cross the placenta. May be excreted in breast milk.

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

SILICON: Dust may cause respiratory and mucous membrane irritation.

Intratracheal administration of 25 mg in rabbits produced slight pulmonary lesions.

CHROMIUM: High concentrations of dusts or fumes may cause irritation.

CHRONIC EXPOSURE:

SILICON: Inert dusts may cause excessive production of mucous, mucous gland hypertrophy and increased airway resistance and may contribute to chronic bronchitis.

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to result in ulceration and perforation of the nasal septum, irritation of the throat and lower respiratory tract, less commonly in gastrointestinal disturbances, blood changes, pulmonary sensitization, pulmonary pneumoconiosis or fibrosis, and rarely liver effects. These effects have not been reported from exposure to the metal per se.

SKIN CONTACT:

ACUTE EXPOSURE:

SILICON: May cause mechanical irritation.

CHROMIUM: Contact with dusts or powder may cause irritation.

CHRONIC EXPOSURE:

SILICON: No data available.

CHROMIUM: Repeated or prolonged exposure to various chromium compounds has been reported to cause various types of dermatitis, including eczema, "chrome holes", sensitization, and, in contact with damaged skin, kidney damage. These effects have not been reported from exposure to the metal per se.

EYE CONTACT:

ACUTE EXPOSURE:

SILICON: Silicon dust may cause irritation.

CHROMIUM: Contact with dusts or powders may cause irritation.

CHRONIC EXPOSURE:

SILICON: No data available.

CHROMIUM: Repeated or prolonged exposure to some chromium compounds may cause conjunctivitis and lacrimation. These effects have not been reported from exposure to the metal per se.

INGESTION:

ACUTE EXPOSURE:

SILICON: The lethal dose reported in rats was 3160 mg/kg; the symptoms were not reported.

CHROMIUM: Chromium metal is poorly absorbed by the intestinal tract. Absorption of sufficient amounts of some chromium compounds may result in dizziness, intense thirst, abdominal pain, vomiting, shock, oliguria or anuria, and uremia, which may be fatal.

CHRONIC EXPOSURE:

SILICON: No data available.

CHROMIUM: No data available.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101 SHIPPING NAME-UN NUMBER:
Metal powders, flammable, n.o.s.-UN3089

U.S. DOT 49 CFR 172.101 HAZARD CLASS OR DIVISION:
4.1

U.S. DOT 49 CFR 172.101 PACKING GROUP:
III

U.S. DOT 49 CFR 172.101 AND SUBPART E LABELING REQUIREMENTS:
Flammable solid

U.S. DOT 49 CFR 172.101 PACKAGING AUTHORIZATIONS:
EXCEPTIONS: 49 CFR 173.151
NON-BULK PACKAGING: 49 CFR 173.213
BULK PACKAGING: 49 CFR 173.240

U.S. DOT 49 CFR 172.101 QUANTITY LIMITATIONS:
PASSENGER AIRCRAFT OR RAILCAR: 25 kg
CARGO AIRCRAFT ONLY: 100 kg

LAND TRANSPORT ADR/RID:
SUBSTANCE NAME: Metal powder, flammable, n.o.s.
UN NUMBER: UN3089
ADR/RID CLASS: 4.1
ITEM NUMBER: 13(c)
WARNING SIGN/LABEL: 4.1
HAZARD ID NUMBER: 40

AIR TRANSPORT IATA/ICAO:
CORRECT TECHNICAL NAME: Metal powder, flammable, n.o.s.
UN/ID NUMBER: UN3089
IATA/ICAO CLASS: 4.1
PACKAGING GROUP: III
LABEL: Flammable solid

MARITIME TRANSPORT IMDG:
CORRECT TECHNICAL NAME: Metal powders, flammable, n.o.s.
UN/ID NUMBER: UN3089

IMDG CLASS: 4.1
PACKAGING GROUP: III
EmS No.: 4.1-02
MARINE POLLUTANT: N

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

TSCA INVENTORY STATUS: Y

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): Y

CHROMIUM: 5000 LBS RQ

SARA SECTION 302 (40CFR355.30): N

SARA SECTION 304 (40CFR355.40): N

SARA SECTION 313 (40CFR372.65): Y

CHROMIUM

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: N

CHRONIC: N

FIRE: Y

REACTIVE: N

SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

STATE REGULATIONS:

California Proposition 65: N

EUROPEAN REGULATIONS:

EC NUMBER: Not assigned.

SECTION 16 OTHER INFORMATION

MSDS SUMMARY OF CHANGES

SECTION 3 HAZARDS IDENTIFICATION

SECTION 6 ACCIDENTAL RELEASE MEASURES

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FEDWIRE PROCEDURES

The Sender should use a bank that offers wire transfer capability. The Federal Reserve Bank of New York will then process the money for deposit to the Defense National Stockpile Account with the Department of the Treasury.

PROCEDURES FOR DEPOSIT SLIP(S) FOR FEDWIRE:

To ensure the funds are credited to the Defense National Stockpile Center the following information is required on any wire transfer of funds.

1. Treasury Dept. Code - Routing No. to the Treasury
MUST BE ON SLIP "021030004".
2. Amount of funds to be transferred.
3. Treasury Department Name - **This item is critical** -

MUST APPEAR EXACTLY AS SHOWN BELOW

TREAS NYC/(CTR/BNF=/AC-00006355)
4. Third Party Information - Purchaser's Name,
Commodity, and Contract Number.